

*A webcomic of romance, sarcasm,
math, and language*

xkcd

RANDALL MUNROE

2006

xkcd

2006

a collection of 203 webcomics

from #1 to #203

by Randall Munroe

#1: Barrel - Part 1

January 01, 2006



Don't we all.

Explanation

This is the first comic in the The Boy and his Barrel series, which shows a young boy floating in a barrel in an ocean that doesn't have a visible end. It comments on the unlikely optimism and perhaps naïveté people sometimes display. The Barrel Boy is completely lost and seems hopelessly alone, without any plan or control of the situation. Yet rather than afraid or worried, he is instead quietly curious: "I wonder where I'll float next?" Although not necessarily the situation in this comic, this is a behavior people often exhibit when there is nothing they can do about a problematic situation for a long time; they may have given up hope or developed a cavalier attitude as a coping mechanism. The isolation of the boy may also represent the way in which we often feel lost through life, never knowing quite where we are, believing that there is no one to whom to turn. In 1110: Click and Drag there is a reference to this comic at 1 North, 48 East. Wired determined a more realistic description of the behaviour of a barrel in the water.

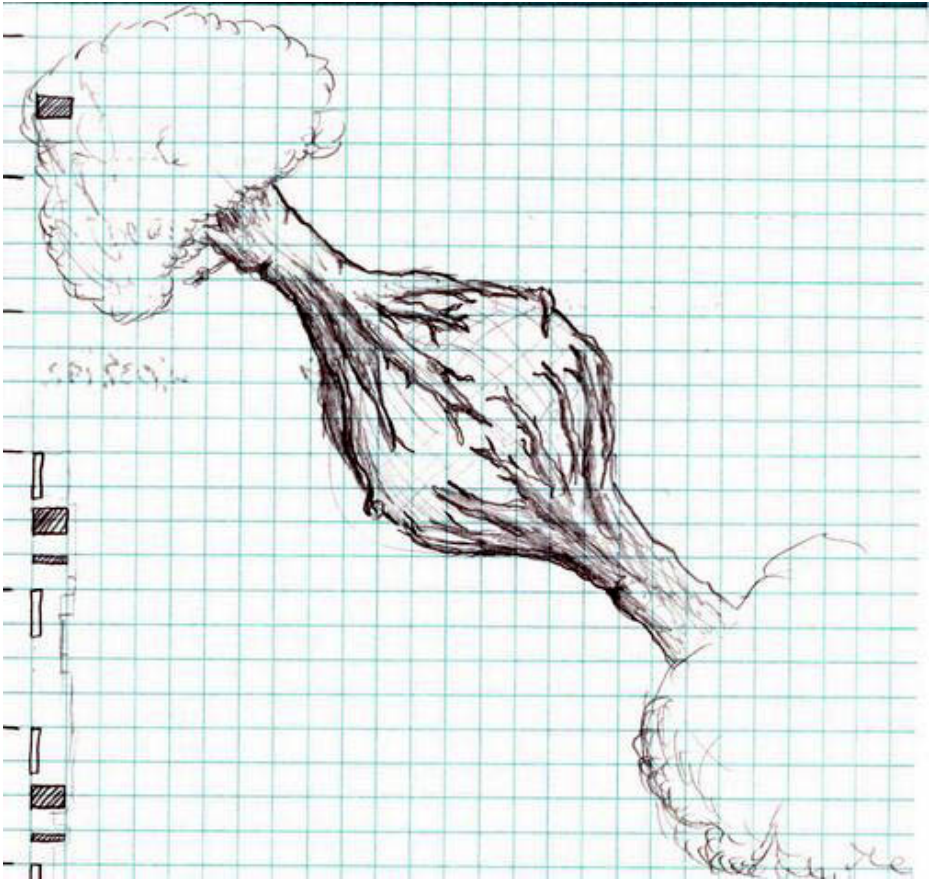
This is the first in a six-part series of comics whose parts were randomly published during the first several dozen strips. The series features Barrel Boy, a character that is different from what would quickly become the xkcd stick figure style. The full series can be found [here](#). After Randall released the full The Boy and his Barrel story on the site, it became clear that the original comic 20: Ferret was also part of the series. The comics are listed in the order chosen by Randall:

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The title text expands on the philosophical content, with the boy representing the average human being: wandering through life with no real plan, quietly optimistic, always opportunistic, and clueless as to what the future may hold.

#2: Petit Trees (sketch)

January 01, 2006



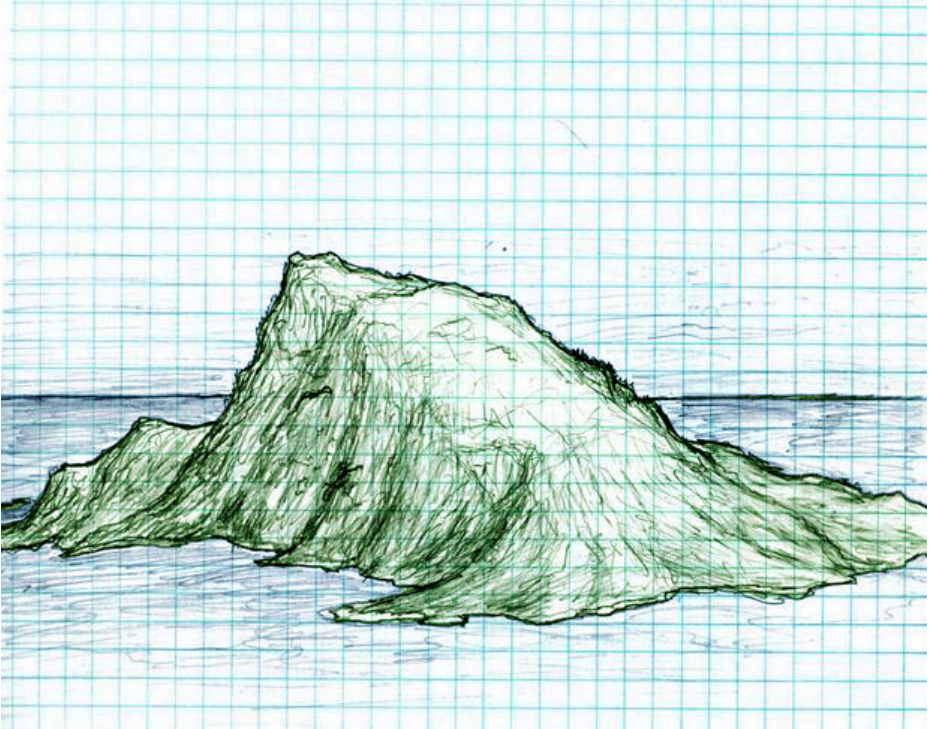
'Petit' being a reference to Le Petit Prince, which I only thought about halfway through the sketch

Explanation

This comic does not present a particular point, it's just a picture drawn by Randall. The Little Prince (in French *Le Petit Prince*) is a novella written by Antoine de Saint-Exupéry in 1943, about the titular Little Prince, who lives on an asteroid and visits other inhabited asteroids and eventually the Earth. The book is filled with drawings of the asteroid, the prince, and the travels they make. It is noted how, on occasion, baobab trees can begin to grow on these asteroids, and should they not be immediately uprooted, the growth of their roots would tear the asteroid apart. The Little Prince would later be referenced in the what if? article *Leap Seconds*, in 618: *Asteroid*, and in 1350: *Lorenz at the end of the space trip branch*.

#3: Island (sketch)

January 01, 2006



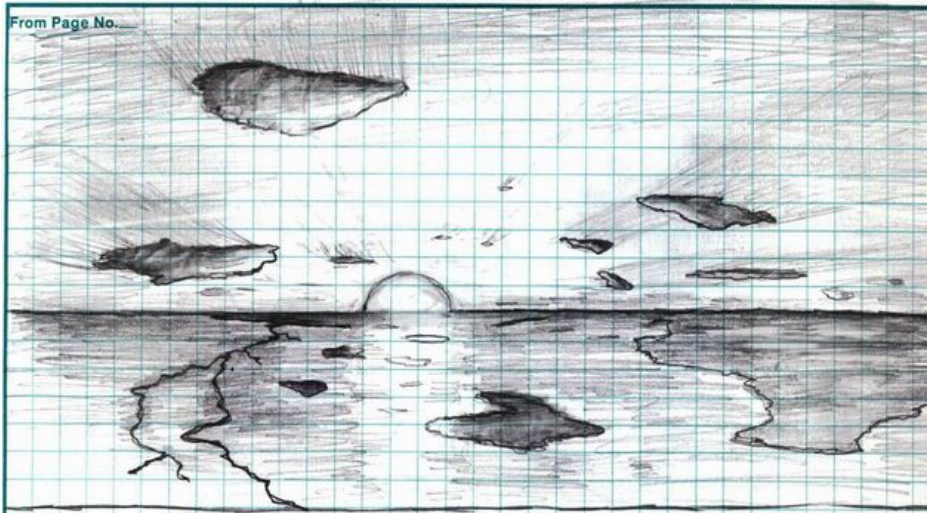
Hello, island

Explanation

This comic does not present a particular point, it's just a picture drawn by Randall. The title text may be a reference to the classical "Hello, world!" program, traditionally the first program a developer runs when learning a new programming language.

#4: Landscape (sketch)

January 01, 2006



There's a river flowing through the ocean

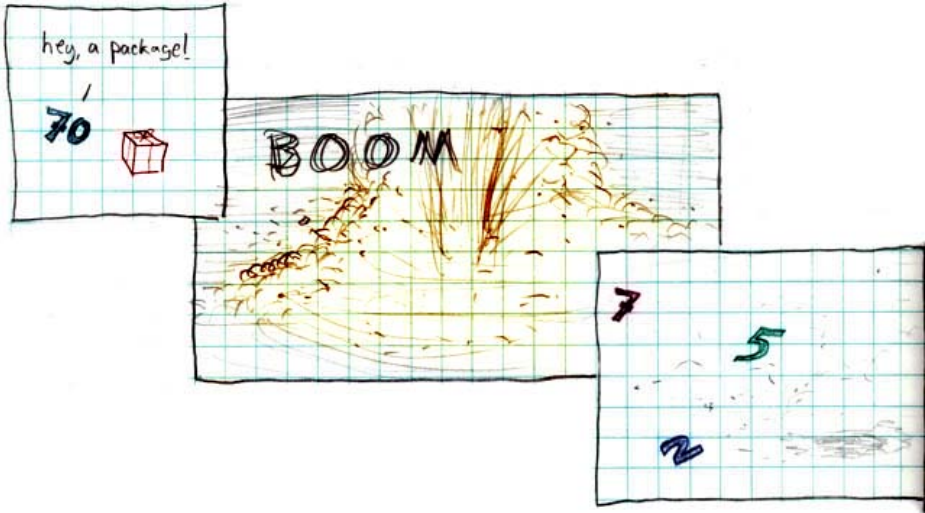
Explanation

This comic does not present a particular point, it's just a picture drawn by Randall. The sketch, when flipped vertically, maintains the appearance of having the sea on the bottom and sky on top, although the setting sun is on the wrong part of the horizon. Similar to works of M. C. Escher, this picture takes visual components of a typical scene and combines them in ways that appear to work well on a small scale, but would never combine that way in real life and do not make sense in the larger context of the image. The clouds are casting shadows on the sky.

In the title text, Randall jokes that there is a river flowing through the ocean. The lighter part in the center of the drawing appears to be the Sun's reflection off a body of water, thus indicating that this feature is ocean, yet the forked and meandering line features to the left look like a river system flowing through the very same landscape. The similar but more singular line to the right could be coastline, one side water, the other land but, because of the conflicting interpretations, it doesn't make much sense to identify the central/foreground surface as either land or sea.

#5: Blown apart

January 01, 2006



Blown into prime factors

Explanation

This comic is a mathematical and technical joke involving prime numbers and primary colors. In the comic, a black-colored 70 sees a package, but it turns out to be a letter bomb that explodes when opened. The result is pieces of the number scattered about: a red-colored 7, a green-colored 5, and a blue-colored 2.

The title text explains the logic for splitting 70 into 7, 5, and 2; as with many of the earlier comics, the title text explains the joke rather than adding to it. $7 \times 5 \times 2$ is a prime factorization of the number 70. Prime numbers are numbers that cannot be divided by any number other than itself and 1. Factors of a number are numbers that can be multiplied together to produce that number (e.g., $2 \times 5 \times 7 = 70$). 70 has other factors, including 1, 10, 14, 35, and 70, but 2, 5, and 7 are the only factors that are prime. All other factors of 70 can be formed by choosing zero, two, or three of the prime factors and multiplying them together.

An implication of this comic is that prime numbers would be immune to explosions, as they are already their smallest parts. Although not explicitly called out, the colors of the numbers also seem to have been blown apart. Red, green, and blue are the primary colors in the additive color model. These colors mixed in pairs produce cyan, magenta, and yellow, which are primary colors in the subtractive color model. The removal of all additive primary colors, or conversely, the combination


of all subtractive primary colors, produces black, which is the color of the original 70. The comic is somewhat misleading in that red, green, and blue do not compose black in either color model, but the difference between the two models is not widely understood (most still view the additive primaries as red, yellow, and blue).

#6: Irony

January 01, 2006

When self-reference,
irony, and
meta-humor
go too far
A CAUTIONARY TALE

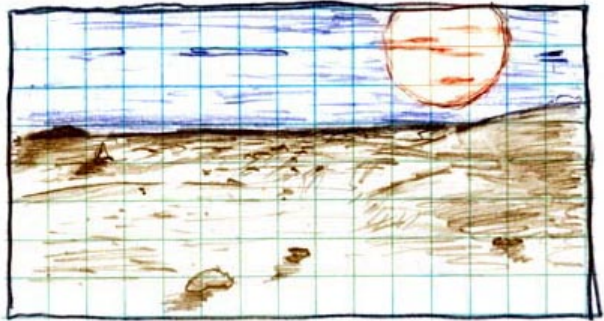
This statement wouldn't
be funny if not for
irony!



haha haha, I
 guess.



20,000
years later...



It's commonly known that too much perspective can be a downer.

Explanation

Cueball makes a true statement, that his statement is not very funny. However, because he invoked irony and thus makes it self-referential, the sentence is now funny! The other guy Cueball, producing a fake laugh, is probably not so sure that it is actually funny.

Now going meta: In 20,000 years, there might be no more humans on earth to find the irony funny anymore. How ironic!

Alternatively, the barren landscape would have occurred regardless of whether someone made the joke, so ironically, the cautionary tale is completely meaningless, although still funny. Self-references would be used again in 33: Self-reference and many more comics.

The title text is a reference to the visit of Spñiäl Tap to the grave of Elvis Presley. In addition, the perspective theme also invokes the Total Perspective Vortex in The Hitchhiker's Guide to the Galaxy. This is located on the desolate planet Frogstar B, possibly looking not unlike the final image in the comic.

#7: Girl sleeping (Sketch -- 11th grade Spanish class)

January 01, 2006



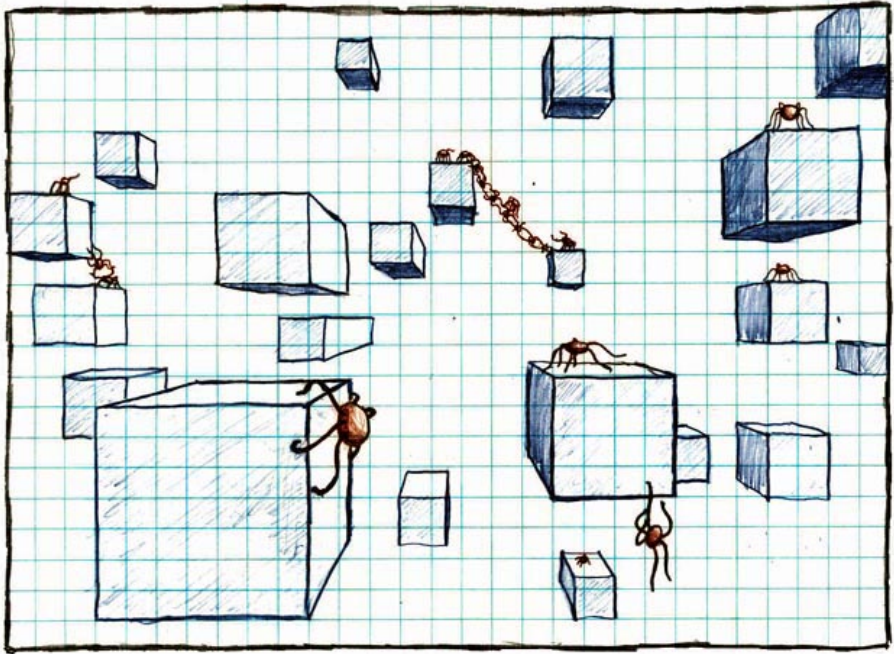
I don't remember her name at all, but she fell asleep on the floor in front of me.

Explanation

This comic depicts a girl sleeping on the floor of Randall's 11th-grade Spanish class, presumably during a movie as shown in the original caption. The title text on xkcd.com explains that Randall didn't know her name, but she was sleeping on the floor, and so he decided to draw her.

#8: Red spiders

January 01, 2006



They are six-legged spiders

Explanation

This comic is the first in an arc of comics, spaced out over 3 years (so far), in which Red Spiders are seen attacking humans. Its objective is not to be funny, philosophical, or scientifically interesting; it just tells a story, in a Questionable Content-esque way. Interestingly, the red spiders actually more closely resemble opiliones, the order of arachnids that includes the Daddy Longlegs, and which are actually more closely related to mites than to spiders.

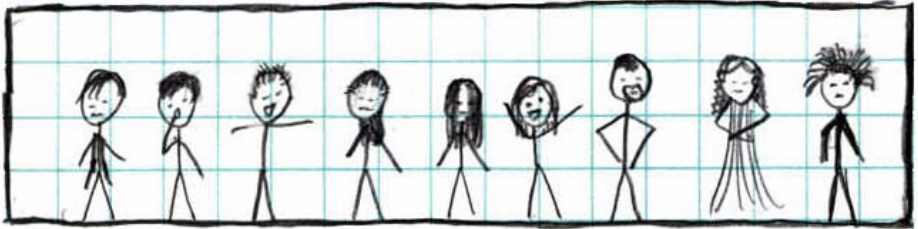
The title text and the original caption note that the spiders in this comic have six legs, while most spiders have eight legs each.

The full series of Red Spiders comics:

- 8: Red Spiders, this one
- 43: Red Spiders 2, in which the spiders begin building.
- 47: Counter-Red Spiders, in which the humans begin a counter-offensive.
- 126: Red Spiders Cometh, in which the spiders attack a city.
- 427: Bad Timing, in which, in a style more typical to xkcd, the spiders attack a couple in the middle of a serious relationship discussion in a hot-air balloon.
- 442: xkcd Loves the Discovery Channel, in which it appears briefly in the 14th panel crawling over a cube

#9: Serenity is coming out tomorrow

January 01, 2006



Mal, Simon, Wash, Zoe, River, Kaylee, Jayne, Inara, Book.

Explanation

This comic is about the release of the movie *Serenity*, which was the follow-up to Joss Whedon's TV show, *Firefly*, which was cancelled by Fox after only one season. Plus, three episodes were not shown on Fox but debuted on Sci Fi Channel in the UK. The show was followed by a devoted number of fans who were outraged by the cancellation of the show. High DVD sales and strong fan support allowed the follow-up film *Serenity* to be created, which tied up many of the loose ends that *Firefly* left open, such as the cause of River's abilities and the origins of the Reavers. Nathan Fillion, Summer Glau, and Jewel Staite, the actors who play Mal, River, and Kaylee respectively, also show up later in Randall's series *The Race*. Randall is presumably excited about the upcoming film, and so has drawn the cast.

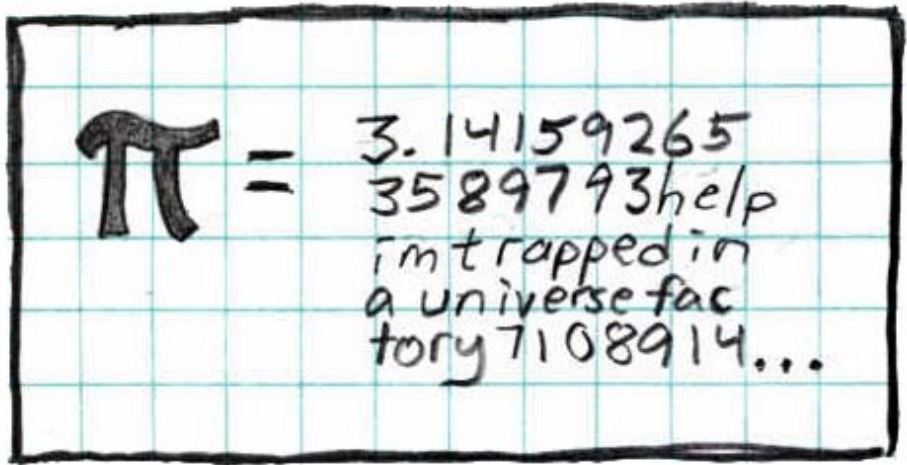
The image shows the main characters of *Firefly*. In the original caption for this comic, Randall initially left figuring out who is who as an exercise to the reader, but the title text on xkcd.com just gives away the solution outright. From left to right:

- Malcolm "Mal" Reynolds - the ship's captain.
- Simon Tam - a doctor trying to rescue his sister.
- Hoban "Wash" Washburne - the ship's pilot.
- Zoe Washburne - the ship's second-in-command.
- River Tam - Simon's sister, who displays superhuman capabilities, but is crippled by alliance research.

- Kaylee Frye - the ship's happy-go-lucky mechanic.
- Jayne Cobb - the hired muscle.
- Inara Serra - a companion, the equivalent of a courtesan, but with a greater deal of respect.
- Derrial Book - a shepherd, which is similar to a priest, with a very unknown backstory.

#10: Pi Equals

January 01, 2006



My most famous drawing, and one of the first I did for the site

Explanation

There are two possible references here. One is from the book *Contact* by Carl Sagan, where the existence of God was shown in the last chapter to be encoded in the digits of pi. The other is an old joke of a fortune cookie with a fortune that reads, "Help! I'm trapped in a fortune cookie factory!" Similar jokes are often repeated for any mass-manufactured personalized item, often implying that the worker who made the item is working in a sweatshop somewhere or is literally trapped inside a factory and calling for help via the items they produce. This joke is also referenced in 327: Exploits of a Mom's title text, where Mrs. Roberts' daughter's name is "Help I'm trapped in a driver's license factory." The most literal interpretation of the joke would be that some being who helped to create the universe in a "universe factory" snuck a message into the digits of pi, asking for help to get out. Mathematical concepts being manufactured in a factory is the main mental image here. One can't help but wonder if the primordial beings who labored on the universe to produce things like the gravitational constant and pi have a labor union. Judging by the fact that they're calling for help, it seems they don't.

Since pi is irrational (it has an infinite, non-repeating decimal representation), if each number pair were assigned a letter from the alphabet, or if it was converted to base-26, ASCII, or some other encoding, the entire works of Shakespeare, as well as any other expressible piece of information, including the message in this

comic, could presumably be found. It is not really known that pi really has this property, but the absence of this property would in itself be an extraordinary coincidence. However, the probability of finding any given string of numbers within a calculable range of digits of pi diminishes rapidly as the string length increases.

In the novel *Contact* by Carl Sagan, he includes a "Signature of God." In brief, the signature consists of a very long string of 1s and 0s far out (after some 10^{20} seemingly random numbers) in the base-11 expansion of pi that when arranged in a square of a specific size yields a clear drawing of a circle with a diameter of several hundred digits. The existence of this pattern was hinted to the protagonist by a member of an advanced alien civilization as being encoded in physics by an even more advanced civilization with the ability to create universes. Interestingly enough, this could also work for pictures: if you assign a set of nine numbers to equal an RGB hexadecimal color value, eventually you will find the Mona Lisa.

The digits after the comic's "trapped" message, 7108914, appear starting at position 13,709,690 of pi, suggesting that the length of the string of "digits" that is 'helpimtrappedinauniversefactory' corresponds to a good 13,709,675 digits long, meaning each individual letter corresponds to about 456989.166667 digits. Aggravatingly, however, if the string was instead "71089314", it would appear at position 2533.

- If the letters correspond to the phone keypad, then these digits are wrong: 3.14159265358979343574687277334628648377332286797108914
- If the words correspond to their length, then these digits are wrong: 3.14159265358979342721877108914
- And if the words are omitted altogether, then these digits are wrong: 3.1415926535897937108914

In the title text, Randall notes that this is one of his first drawings and it became one of his most famous comics. At the time, it was re-released on xkcd.com on January 1, 2006, with the number 10, but it was the eleventh comic posted to LiveJournal. See the trivia section below.

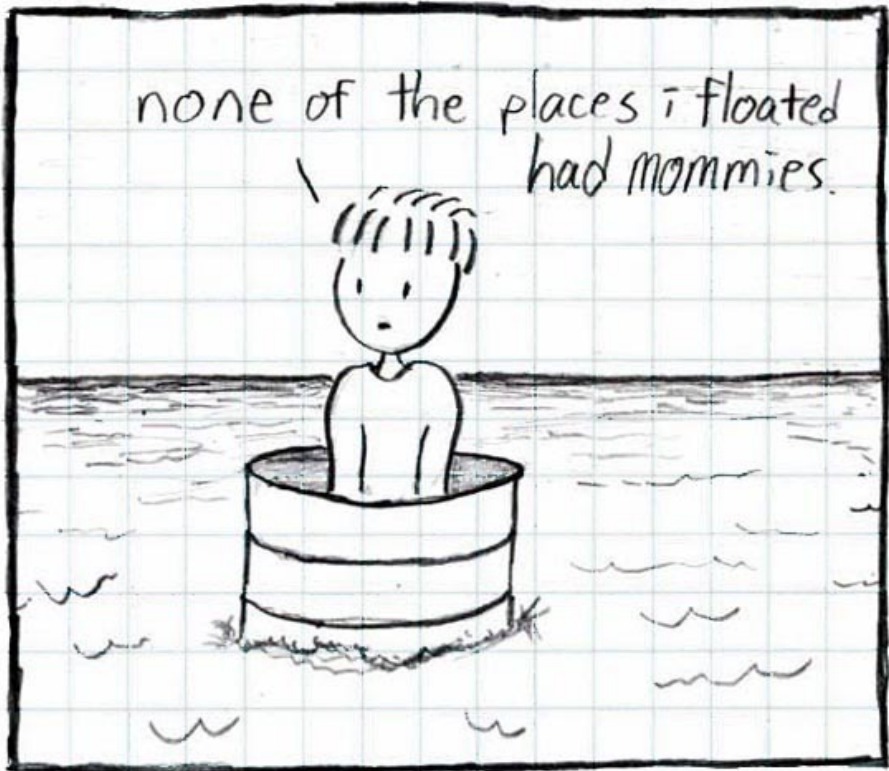
In the book xkcd: volume 0, this comic has a different title text: "I've put rescue instructions in e. You'll need the cheat codes for your universe, which I hid in the square root of two.". This title text is a message styled so that it would appear to come from the maker(s) of this universe, detailing how to escape it. A cheat code is a type of utility in certain video games, that, when inputted, gives the player things not normally granted in normal gameplay. As the universe is not such a game,[citation needed] such a concept would be somewhat nonsensical.

The comic in that book has also red text at the bottom of the page: CNEG BAR BS RVTUG VA URK: RR AVAR RVTUG SVIR BAR BAR RVTUG. It's ROT13 for "PART ONE OF EIGHT IN HEX: EE NINE EIGHT FIVE ONE ONE EIGHT". The hex

number "EE985118" is 4,002,959,640 in decimal, so that could be the answer to the number in the title text.

#11: Barrel - Part 2

January 01, 2006



Awww.

Explanation

As in the previous comic in the The Boy and his Barrel series, the boy is floating in the ocean inside a barrel. The previous comic made a point about the uncertainty of life; here, Barrel Boy's lament at not finding a mother is pure sentimentality, as accentuated by the title text. According to Freud, the first stage of psycho-sexual development is the Oral Stage, which relates to a baby's relationship with its mother. The realization that 'mommy' cannot be found is the first point at which a person learns to stop trusting the world and realizes that the world is not always comforting and safe.

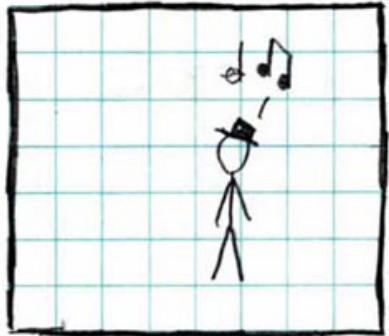
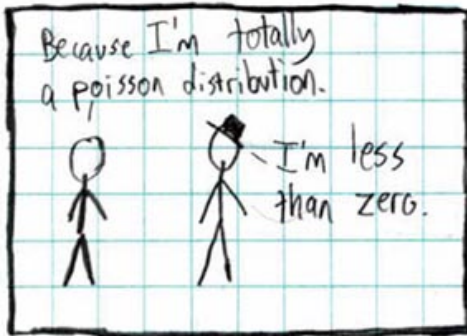
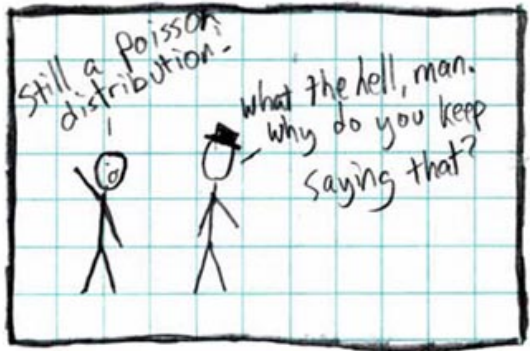
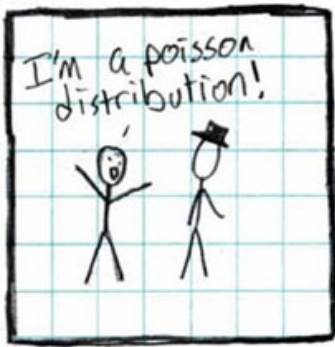
This is the third in a six-part series of comics whose parts were randomly published during the first several dozen strips. The series features Barrel Boy, a character that is different from what would quickly become the xkcd stick figure style. The full series can be found [here](#). After Randall released the full The Boy and his Barrel story on the site, it became clear that the original comic 20: Ferret was also part of the series. The comics are listed in the order chosen by Randall:

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#12: Poisson

January 01, 2006



Poisson distributions have no value over negative numbers

Explanation

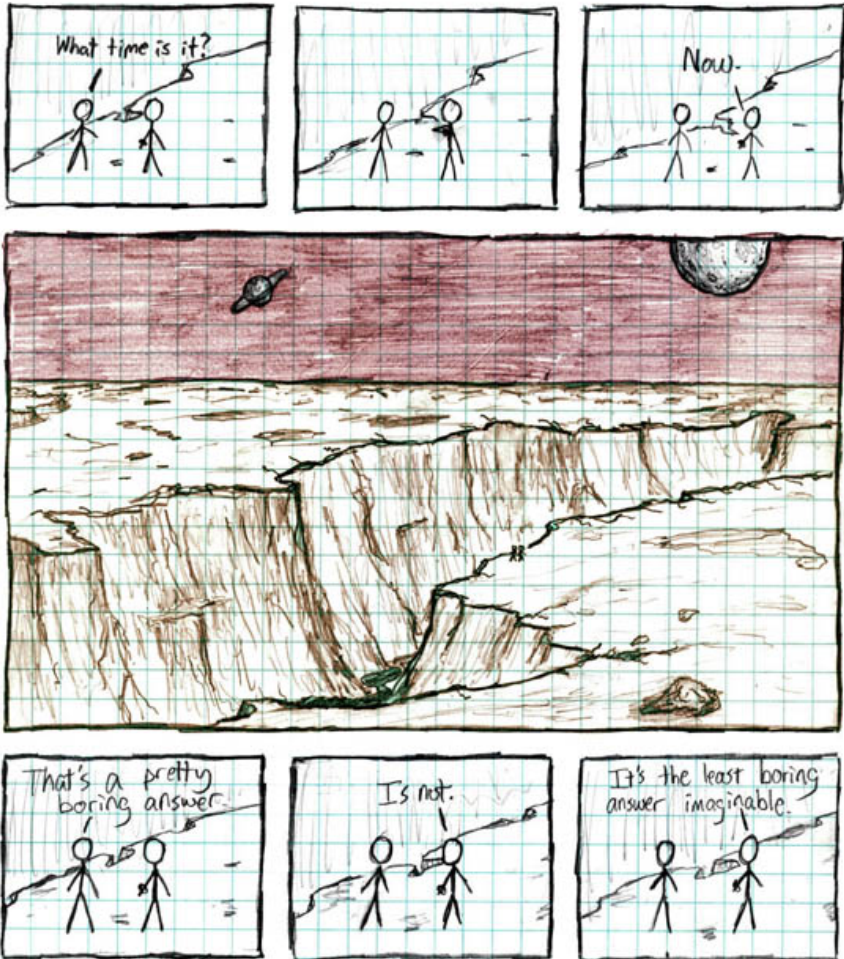
Cueball expresses himself as a Poisson distribution, which shows the probability of a given number of events occurring in a fixed interval of time or space. The X axis typically represents the "number of events" while the Y axis is a decimal representing the probability (e.g., 0.5 for 50% probability) a given number of events will occur in that fixed interval of time or space. It is commonly represented by a bar graph or a scatter graph (sometimes with a line connection to show a trend, even though there is no actual value for non-integers).

What's important to note for this comic is that this distribution only has data points on non-negative integers and is not continuous through decimal numbers or (as the image text tells us) negative numbers because events can't occur 0.3 of a time, or -2 times. After implying that the concept of a person being a mathematical distribution is irrational, Black Hat suggests he is "less than zero". Since the Poisson distribution doesn't exist or has no value at negative values, Cueball no longer exists to Black Hat and thus either leaves or disappears magically. Cueball repeating his claim may also be a reference to the fact that the Poisson point process is memoryless. Randall was still experimenting with character design, as Cueball has a face in the first two frames.

In the title text, as in some other early comics, Randall explains the joke rather than adding to it.

#13: Canyon

January 01, 2006



They're standing at the lip of the canyon, which isn't clear at all.

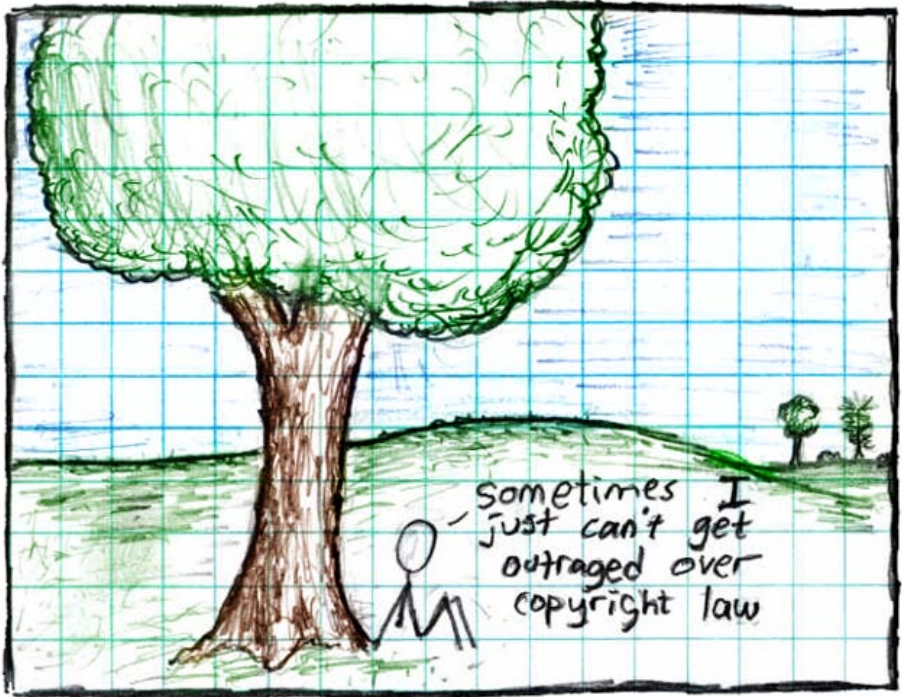
Explanation

Cueball and his friend (who also looks like Cueball) are having a discussion. After the friend asks Cueball what the time is, Cueball simply states that it is "now." Then there is a beat panel showing the two standing at the lip of a great canyon drawn in detail and color. The friend claims that "now" is a boring answer, since it's a tautology, a functionally useless answer, and a bad joke all at the same time. Cueball, however, asserts that "now" is the least boring answer he could give. It's typical for humans to focus on mundane concerns, like a meeting they might be late for or a bus they have to catch, and take their familiar environment for granted, no matter how fabulous it might have been at first sight.

The title text explains that they stand on the lip of the canyon, which may not be clear if you do not look very carefully at the color drawing. There are two tiny stick figures at the edge of the canyon, near the center of the panel. On the other six panels, there is just a ragged line, which thus obviously is this lip of the canyon.

#14: Copyright

January 01, 2006



After reading Slashdot and BoingBoing, sometimes I have to go outside.

Explanation

For Cueball, following the copyright wars can be tiring and irritating, but faced with the beauty of nature, its importance fades away. Copyright is a monopoly granted by governments to artists or corporations to control the distribution of their creative works. Before the digital age, it allowed authors and publishers an opportunity to profit from their work without fear of someone making copies and selling them for their gain. In the digital age, when the cost and difficulty of copying has been reduced to near zero, it hasn't worked so well, especially for publishers of music and video. Via the idea of digital copyright, industry trade organizations like the RIAA and MPAA fought to preserve their old business models, lobbying for new laws to protect their income streams in an age where anyone can copy an MP3 file or a DVD quickly and cheaply.

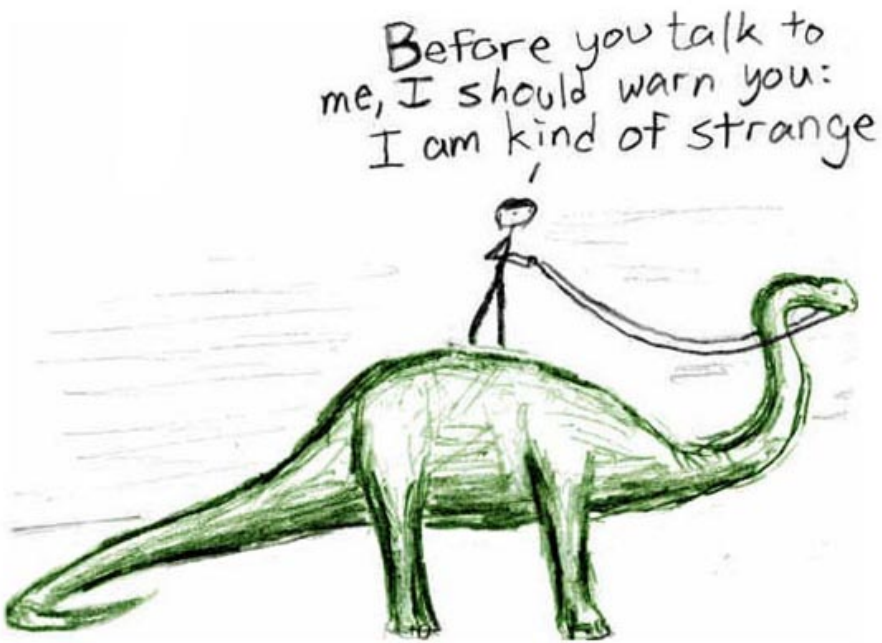
This has involved ordering web sites to take down "infringing" material (and many times material that wasn't infringing), media campaigns comparing file copiers to folks who commit murder on the high seas, and suing artists and writers who have used samples of music or movies in their own work. The RIAA has claimed that rampant illegal copying hurts the artists whose work is copied, as it cuts into the artists' royalty payments; many artists, on the other hand, complain that the RIAA's accounting practices have denied them their fair royalties for decades anyway, and that increased copying leads to increased fans and money through

direct sales and is actually better for them than the RIAA. It's a vicious war. An early casualty in the copyright wars was Napster; a later casualty was the concept of DRM (Digital Rights Management) on recorded music and/or elsewhere. The wars have been going on since the early 1990s and essentially ended with the advent of streaming service royalties (Apple Music, Pandora, etc.).

In the title text, Slashdot and Boing Boing are two news aggregation websites that cover (among other things) the copyright wars in detail, usually biased against the RIAA, MPAA, and similar organizations.

#15: Just Alerting You

January 01, 2006



Just thought you should know

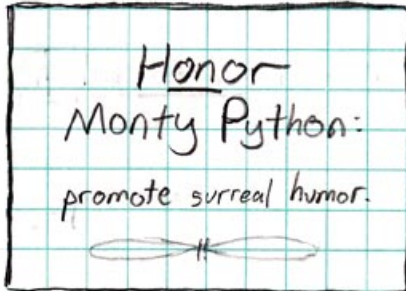
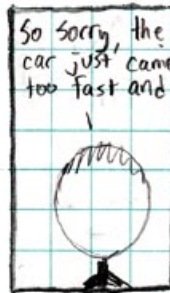
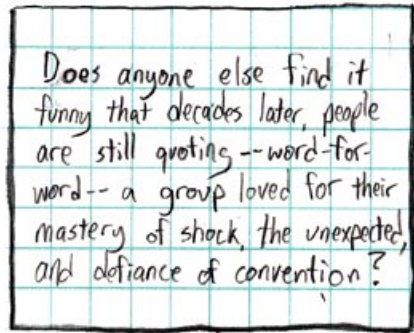
Explanation

In this comic, a person is riding a Brontosaurus (or what would later be referred to as an Apatosaurus). The humor lies in the fact that the person feels the need to highlight their peculiarity, despite the obvious oddity of riding an extinct and dangerous creature. Megan would later imagine riding an Apatosaurus in 650: Nowhere. This dinosaur genus is also mentioned in 460: Paleontology and 636: Brontosaurus. This was the first comic to feature a dinosaur, but since then, there have been numerous comics about them on xkcd.

The title text further emphasizes this, while the original caption signifies that Randall would start posting a new comic every Monday, Wednesday, and Friday. Ironically enough, this comic was posted on a Sunday, a few minutes before Monday: see the trivia section. From now, he also began putting the date into most, but not all, comic titles on LiveJournal until he started to use xkcd.com instead.

#16: Monty Python -- Enough

January 01, 2006



I went to a dinner where there was a full 10 minutes of Holy Grail quotes exchanged, with no context, in lieu of conversation. It depressed me badly.

Explanation

This comic refers to the classic British sketch comedy group Monty Python, active primarily during the 1970s and early 1980s but also partly reunified in 2014, whose humor style was frequently based on surreal jokes that subverted sense and logic. Their sketches are so popular that, as noted in the comic, many fans can repeat the dialog word-for-word, and often do. This comic points out the inherent irony of repeating a surrealist sketch, as surrealist humor primarily depends on presenting something the audience does not expect. By repeating the sketch verbatim among those who have already seen it, the listeners know and expect the punchlines and jokes. This is akin to a common ironic concept of a teenager who wants to rebel against conformity by doing all the things their friends are also doing.

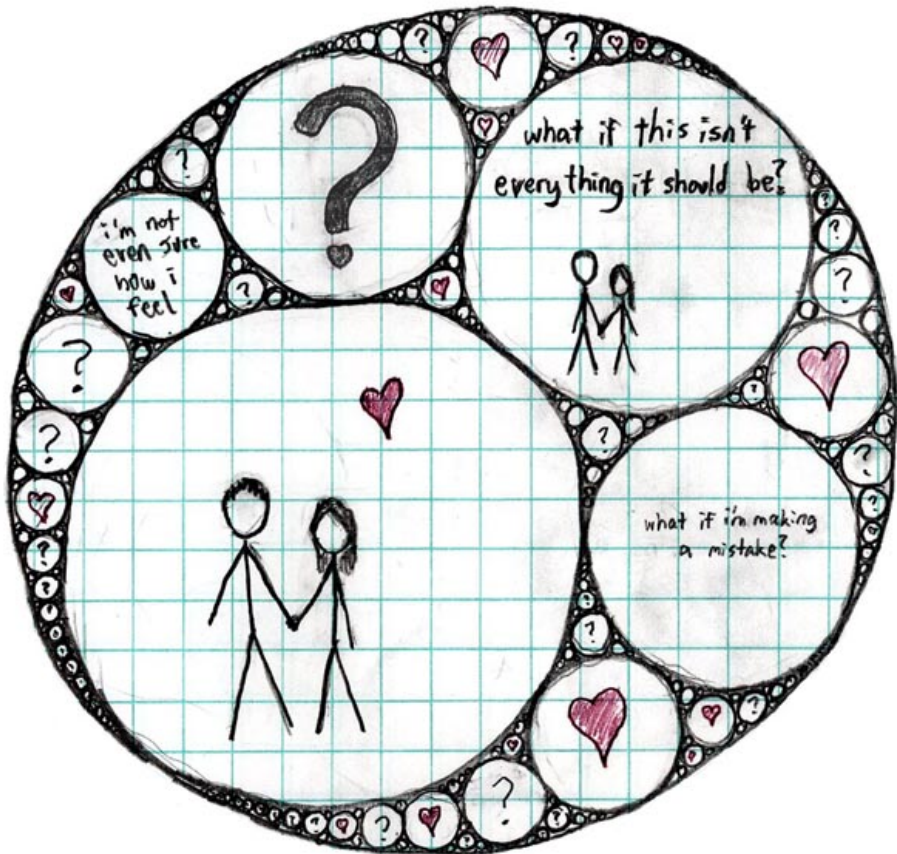
The sketch in question here is the "Knights who say Ni" sketch from the film Monty Python and the Holy Grail, about a group of knights who protect certain sacred words, including the word "Ni" (pronounced like the word "knee," but shortened and with more staccato). The comic suggests that readers continue in the surreal traditions of Monty Python, and provides an example: The character in panels 3-6 interrupts his retelling of the sketch with what appears to be a traumatic recalling of the time he saw someone run a woman over with their car and kill her, before returning to the sketch. The surreal humor is that the character dismisses the significant and serious comment he has just made by

returning to the sketch as if nothing happened.

The title text and the original caption refer to how fans of Monty Python can go for lengthy periods of time simply quoting the sketches, as one person quotes a sketch, another recognizes it and says another quote without context, assuming everyone will recognize it. Perhaps a more contemporary version of this might be The Simpsons or Family Guy quote frenzies.

#17: What If

January 01, 2006



I once made an anniversary card for my then-girlfriend with this layout.

Explanation

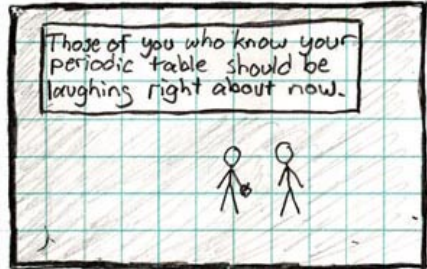
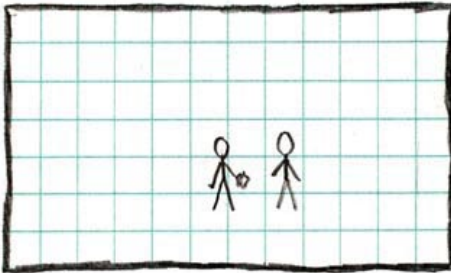
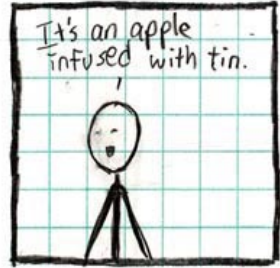
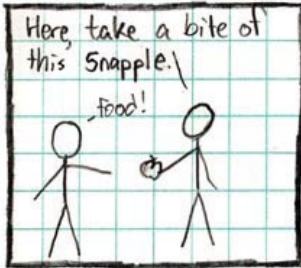
The comic features a man and a woman in a romantic setting, surrounded by a fractal combination of love and doubts; an arrangement based on the Apollonian gasket construction. Three circles are drawn tangent to each other, then additional circles are added that are tangent to three existing circles (without overlapping), ad infinitum. Randall hadn't standardized his character designs yet, so it's hard to say if the comic features Megan and Cueball or Hairy.

In the original caption, Randall reports that one of his best friends recently got engaged. The friends he's referring to are Scott and Sarah (probably the one from 84: National Language), as he confirms in the comment section for this comic.

#18: Snapple

January 01, 2006

This one is entirely James' fault.



Sn = tin

Explanation


Snapple is a brand of beverages that mostly sells bottled juices and teas. Its name is based on a carbonated apple juice the company once produced ("snappy apple"). In this comic, Cueball hands another Cueball-like guy an apple calling it a "Snapple". When the guy bites into it, his teeth are blocked by the apple's metallic surface because Cueball has infused the apple with tin. Tin is a metallic element whose abbreviation on the periodic table is "Sn" (as the Latin word for tin is "stannum"). Thus, the "tin apple" could be referred to as a "Sn-apple". The fourth panel is a silent wide shot, perhaps suggesting the joke was met with silence as a weak joke. As a meta-joke, the final panel might jokingly suggest that the silence is because those unfamiliar with the periodic table of elements don't get the joke. According to the caption at the top, James Zetlen presumably once made a joke to Randall similar to the one in the comic.


The title text continues the trend in early xkcd comics of explaining the joke rather than expanding on it.

#19: George Clinton

January 01, 2006

I once tried to start the urban legend that George Clinton has a B.A. in mathematics


$$\mathcal{L}\{f(t)\} = F(s) = \int_0^{\infty} f(t) e^{-st} dt$$
$$\mathcal{L}^{-1}\{F(s)\} = f(t) = \int_0^{\infty} F(s) e^{st} ds$$

$$Y_n = 2^{\frac{n}{12}} K$$


... but I wanted it to be true so badly that I started believing it myself.

I still wish it were true.

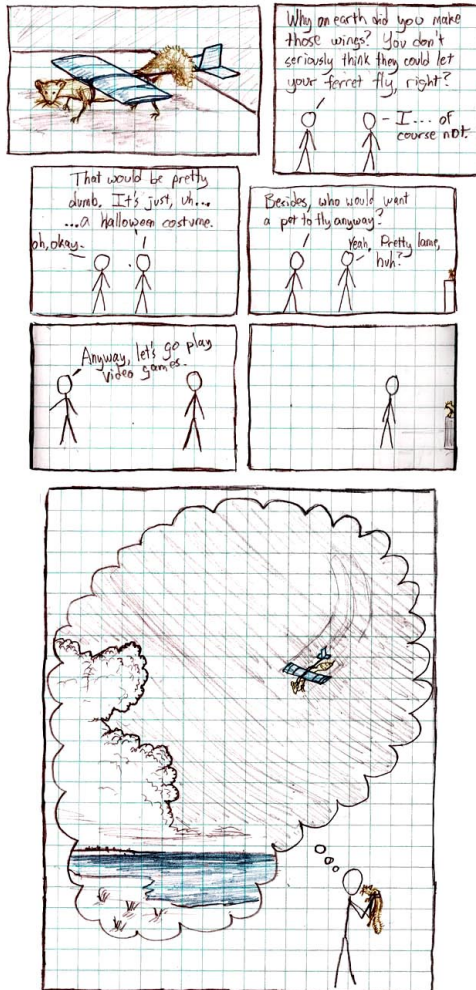
Explanation

George Clinton is an American musician most famous for his funk music and wild hair style. His recorded music features themes of space, sci-fi, technology, and futurism. As Randall says, he had attempted to spread around an urban legend that George Clinton had a Bachelor of Arts degree in mathematics, but he found himself believing it was true. This behavior is related to *pseudologia fantastica*, which is more commonly known as pathological or compulsive lying. This comic references the associated behavior that an "individual may be aware they are lying, or may believe they are telling the truth, being unaware that they are relating fantasies." These individuals may eventually stop the lie as demonstrated by the title text, which indicates that at some later time, the individual realized that the rumor was not true, but wishes it to be so.

The equations on the board are laplace transforms of functions. The first Laplace transform has a mismatched left parenthesis, which would be the topic of 859: (. The second formula is not the inverse Laplace transform as stated, as it differs from the actual Mellin's inverse formula by its bounds and a missing factor. An example of George Clinton's work most appropriate to this comic is the song "Mathematics" from the 1996 album T.A.P.O.A.F.O.M.. (The Awesome Power of a Fully Operational Mothership):

#20: Ferret

January 01, 2006



My brother had a ferret he loved which died since I drew this strip. RIP.

Explanation

Cueball built wings for his ferret and his friend asks why, indicating that it would be foolish to think that this would allow the ferret to fly. Cueball did, in fact, build these wings in hopes of allowing his ferret to fly, but disassembles in order to avoid losing face with his friend. Then the friend suggests they go play video games instead, while Cueball imagines the ferret actually flying. The fact that Cueball lies about his goal may be a commentary on abandoning dreams to avoid confronting societal expectations.

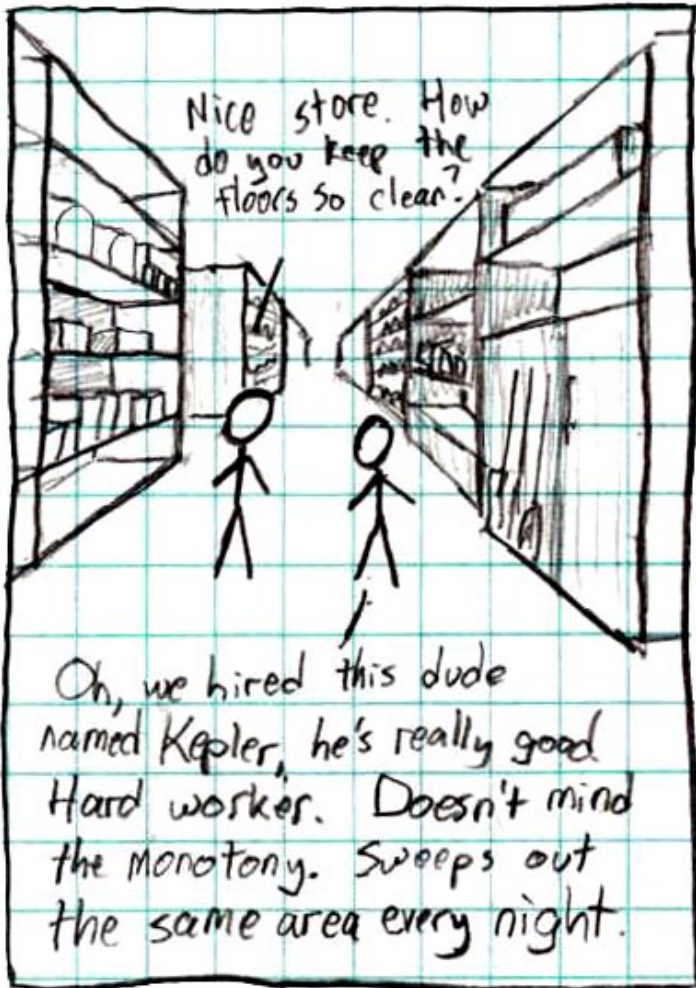
The title text refers to the fact that Randall's brother in real life had such a pet ferret. As shown by the original caption, Randall drew this comic while the ferret was still alive, but then it passed away in between his posting it on LiveJournal and reposting it with a title text on xkcd.com. He now wishes that it will rest in peace, as do we here at explain xkcd.

This is the second in a six-part series of comics whose parts were randomly published during the first several dozen strips. The series features Barrel Boy, a character that is different from what would quickly become the xkcd stick figure style. The full series can be found [here](#). After Randall released the full The Boy and his Barrel story on the site, it became clear that the original comic 20: Ferret was also part of the series. The comics are listed in the order chosen by Randall:

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- 20: Ferret
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- 22: Barrel - Part 3
- 25: Barrel - Part 4
- 31: Barrel - Part 5

#21: Kepler

January 01, 2006



Science joke. You should probably just move along.

Explanation

Johannes Kepler was a German mathematician, astronomer, and astrologer, best known for his laws of planetary motion. By using Tycho Brahe's observations of our solar system (Brahe gave Kepler the job of observing and explaining the motion of the planet Mars), Kepler was able to deduce that planets in the system do not move in circular orbits around the Sun, but rather in elliptical ones. In doing so, he directly contradicted Brahe's own conviction that the Earth was the center of the universe. According to Kepler's Second Law, "A line joining a planet and the Sun sweeps out equal areas during equal intervals of time," somewhat akin to sweeping a broom over the floor. In the comic, the janitor Kepler also sweeps the same area, although in this case, "area" is used in the sense of "surface" (of floor) rather than in the purely mathematical sense. It is also very monotonous, like a planet's set orbit, but Kepler doesn't mind this.

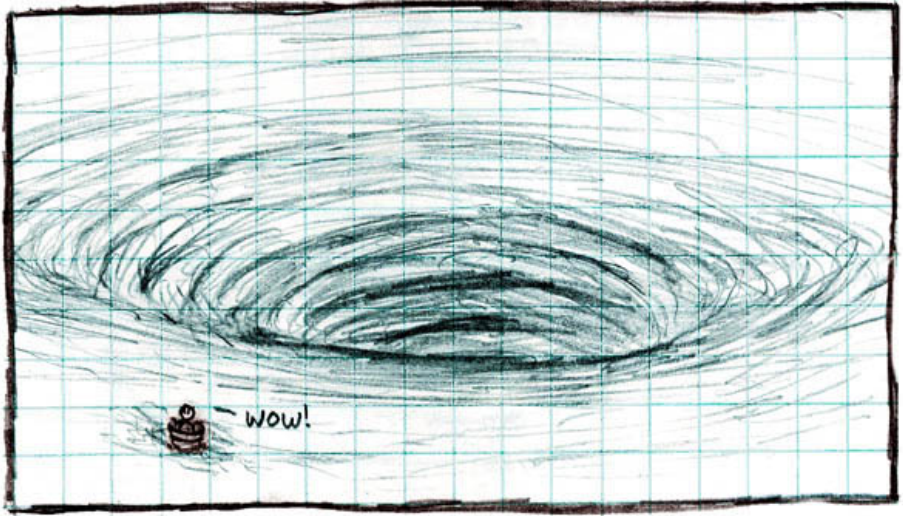
The comic could also be seen as a subtle reference to the Kepler space telescope that was searching for exoplanets (planets outside the Solar system) from March 2009 to August 2013, by looking at exactly the same spot in the night sky over and over again. Even though the telescope was not launched until 4 years after this comic was published, the details of Project Kepler had been disclosed by NASA press releases as early as 2001.

The title text assumes that the reader is scientifically

illiterate and won't understand the joke, which is ironic, considering how xkcd came to be known for embracing STEM fields and nerdiness in general. Or perhaps moving along refers to tracing an orbit.

#22: Barrel - Part 3

January 01, 2006



A whirlpool!

Explanation

In the first two comics in the The Boy and his Barrel series, the boy is floating in the ocean in a barrel, making fairly innocent points about life's uncertainty. In this comic, the view has zoomed out considerably, and the boy is seen to be on the edge of a gigantic whirlpool. Thus, there is now a palpably heightened sense of danger, though the boy's reaction continues to be innocent wonder. The comic's visual composition is reminiscent of a classic 1919 illustration by Harry Clarke, made for Edgar Allan Poe's 1841 short story "A Descent into the Maelström." In the short story, the main character escapes from drowning by using a barrel to escape The Maelström.

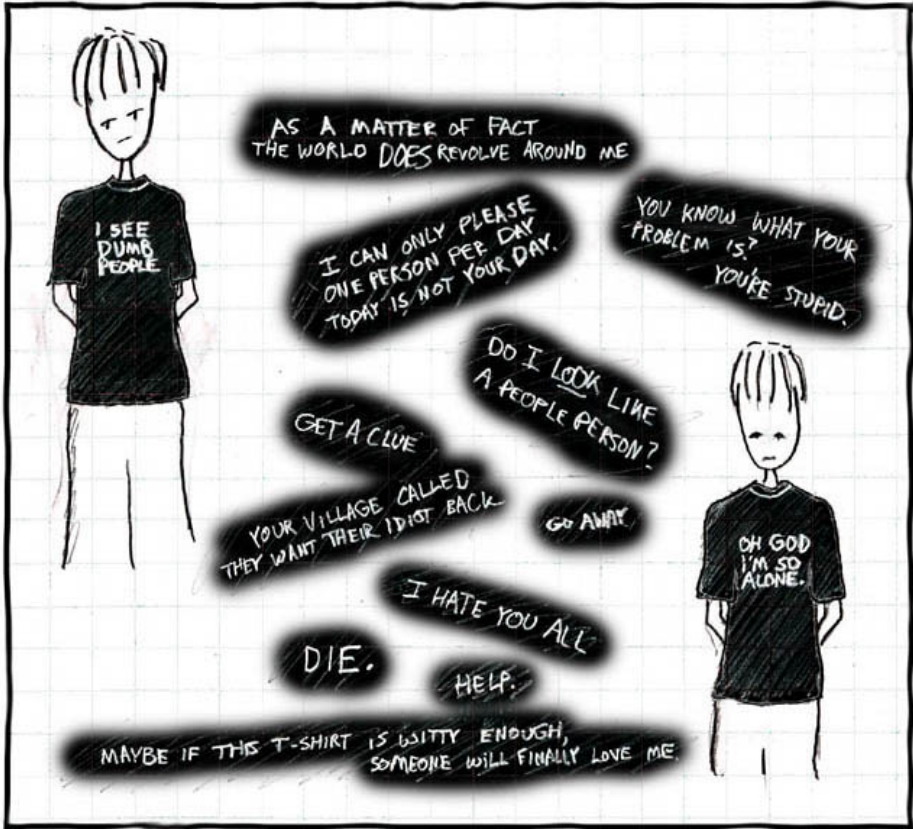
The two links in the original caption used to link to the pictures of the first and third comic in the series, but they are now defunct. Here is the last part of the caption containing links to the archived pages: "(Part 1 and Part 2)".

This is the fourth in a six-part series of comics whose parts were randomly published during the first several dozen strips. The series features Barrel Boy, a character that is different from what would quickly become the xkcd stick figure style. The full series can be found [here](#). After Randall released the full The Boy and his Barrel story on the site, it became clear that the original comic 20: Ferret was also part of the series. The comics are listed in the order chosen by Randall:

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- 25: Barrel - Part 4
- 31: Barrel - Part 5

#23: T-shirts

January 01, 2006



It's depressing how many of these are real shirts

Explanation

This comic satirizes the plethora of "snarky" phrase T-shirts that exist today. In the top-left, the character wears a typical (and real) snark shirt, "I see dumb people" (suggesting that the wearer thinks everyone else is dumb, while being a parody of the phrase "I see dead people" from the movie *The Sixth Sense*). Other shirts shown also suggest that the wearer is better than everyone else, and perhaps the shirts increasingly suggest that the wearer is anti-social moving from top to bottom. Near the bottom of the screen, the T-shirts no longer attempt to be witty and simply have straightforward phrases like "go away" and "die". These are exaggerations of the message that the other more-realistic shirts broadcast.

The final three shirts are also exaggerated shirts that suggest Randall's view that people who wear snarky shirts are overcompensating for the fact that they are already alone or perhaps putting up a tough exterior to conceal their sadness that no one would talk to them anyway. Most notably "maybe if this T-shirt is witty enough, someone will finally love me" sums up what Randall thinks snarky shirts really say. There are shirts with this or a similar message, although it is unclear whether they were created before this comic or as a tribute to this comic.

In the title text, Randall says that it's depressing how many of the shirts in the comic actually exist in real life, further underlining the point that these shirts are overly

arrogant, to the point where one might believe that Randall made them up. This highlights the inadequacy of substance within these T-shirts and the emotions they invoke in Randall's mind, as shown in the original caption.

#24: Godel, Escher, Kurt Halsey

January 01, 2006



I love the idea here, though of course it's not a great-quality drawing or scan.

Explanation

At the time xkcd was created, Randall was working on robotics at NASA's Langley Center. This comic was drawn during that period, while attending a talk that he didn't seem to like. The comic is drawn in the form of a storyboard and is intended to be visualized as an animated sequence. In the first part of the comic, two people discuss the difficulty of comparing past and present generations, since the person making the comparison invariably belongs to one of the two groups. The character with a hat is not Black Hat, as Randall hadn't standardized his character designs yet. The assembly of text panels found in the middle of the strip is similar to 124: Blogofractal. The philosophy of Kurt Gödel is also a theme in 468: Fetishes.

The name of the comic is a portmanteau-like play on the following:

- Gödel, Escher, Bach is a book by Douglas Hofstadter. He is an American author who has written several books about philosophy, mathematics, and science. This particular book is his most famous one, about "strange loops", self-reference, and recurring patterns, partially shown through the works of the three people in its title:

Kurt Gödel was a 20th-century mathematician most famous for proving that in our commonly used axiomatic systems, there are true propositions that

cannot be proved from the axioms. His proof used a self-referential paradox.

M. C. Escher was a 20th-century artist most famous for mathematically inspired engravings of tessellated animals, impossible scenes, hyperbolic geometry, and so on. The form of this strip resembles one of his Metamorphosis etchings.

Johann Sebastian Bach was a German composer and musician from the Baroque Period, famous for numerous works such as the Brandenburg Concertos and his extensive use of the fugue form of composition, which involves the expression of a theme, its development, and finally a recapitulation or return to the original expression.

- Kurt Halsey is a comic artist from Oregon. His work often contains introspective philosophical musings. At least one phrase in the letter is attributed to Halsey, "The past is just practice".

The original caption contains a defunct link, which indicates that the comic posted on LiveJournal was only part of this series. Unfortunately, both the image in the LiveJournal post and the link in the caption weren't archived in the Web Archive, so we can't confirm if there is even more to this comic than now available on xkcd.com or if the original post only covered part of this series. However, based on how Randall describes the "full series" in the caption ("It careers wildly from intellectual to chaotic to Godel, Escher, Bach to Kurt Halsey to chaotic and sappy."), it's more likely that the comic on

xkcd.com is the full series, and the LiveJournal post only included the initial part, possibly to occupy less space in the feed. All the adjectives used in the caption perfectly match the flow of the comic.

Interpretations[edit]

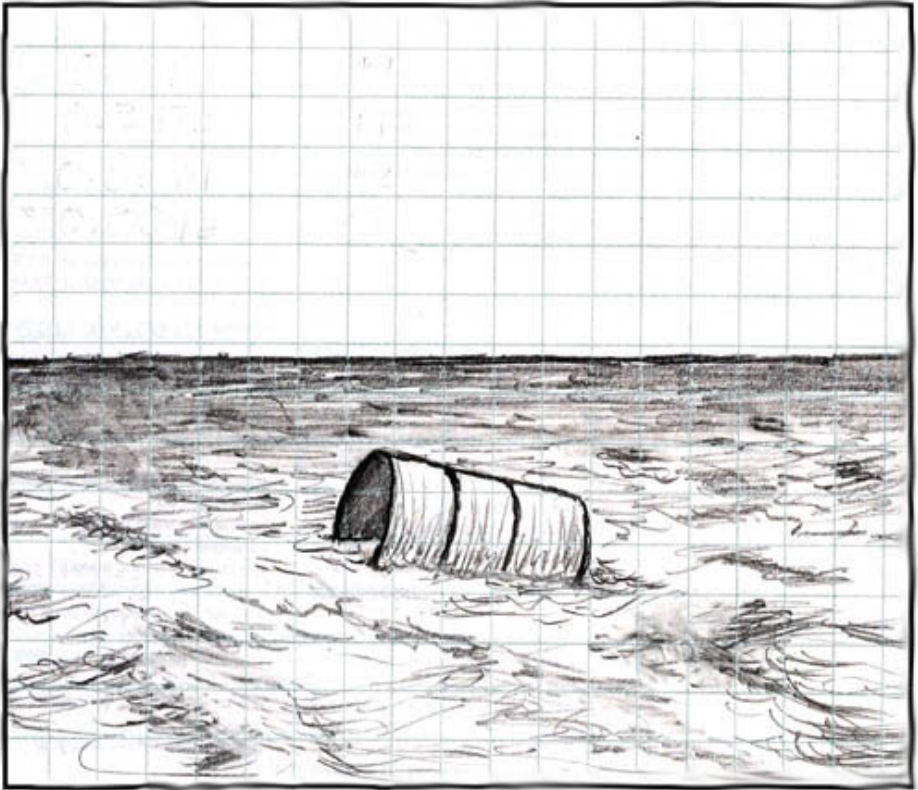
- The bubbles may illustrate ideas, memories, or subjects that one could wonder about. In the context of the boring talk, this would mean that Randall is lost in thoughts and gradually loses focus of things going on around him. He sees the talk as mundane, as a part of so many other "subject bubbles". Even the comic vertical lines (and therefore the strip's structure) seem to lose their sense to Randall as they collapse and become part of the scene, eventually merging three panels into one. They later reappear for the last six panels.
- The big bubble pushing the small ones further outside may demonstrate how shallow the surface bubbles are to him, or represent an infinite (or very large) number of small bubbles.
- The quote stating "There's too much. And so little feels important." tells us that he feels overwhelmed by the world, maybe by information given in the NASA talk or by events in his life. He recognizes what is important to him, and he feels that it is small compared to the size of the worries of the world (or the big bubble). He may have experienced a sort of existential crisis before turning to his feeling of love in the last panels, when asking himself, "What do you do?".
- The structure of the strip has some abstract connections with the structure of the book. The beginning, middle, and end sequences reflect back on themselves; the strip displays some symmetry. In the book, there's an interplay of contributions

from the artist, the musician, and the mathematician; some of this is present in the strip [Lots of citations missing].

- The biggest bubble is expanding, and on it is a fractal arrangement of articles describing various scientific and philosophical discussions. A subjective interpretation is that the fractal nature of the excerpts is a comment on the unending attempt to rationalize and justify the unchanging nature of humanity. The largest bubble bursts, leaving the two figures on a shred of what once was. The final question is, "What do you do when the bubble bursts?" It seems that his answer is to find someone and love them; in the end, that's all that matters. The rest is just air.

#25: Barrel - Part 4

January 01, 2006



:(

Explanation

In the first three comics of the The Boy and his Barrel series, Barrel Boy explored the ocean in a barrel and then encountered a whirlpool, all with a reaction of innocent wonder. Here, the empty barrel floating adrift, the title text, and a previous announcement by Randall that this would be the conclusion of the series, imply that the boy's encounter with the whirlpool separated him from the barrel, and he may have died.

This is the fifth in a six-part series of comics whose parts were randomly published during the first several dozen strips. The series features Barrel Boy, a character that is different from what would quickly become the xkcd stick figure style. The full series can be found [here](#). After Randall released the full The Boy and his Barrel story on the site, it became clear that the original comic 20: Ferret was also part of the series. The comics are listed in the order chosen by Randall:

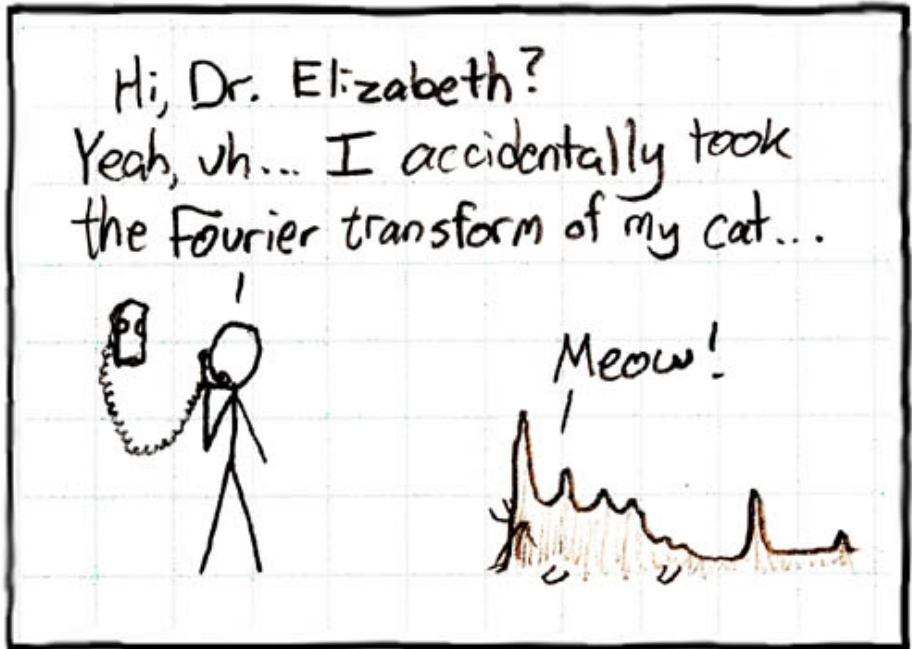
- 1: Barrel - Part 1
- 20: Ferret
- 11: Barrel - Part 2
- 22: Barrel - Part 3
- 25: Barrel - Part 4
- 31: Barrel - Part 5

There was no original caption on LiveJournal for this comic. However, just three hours and four minutes after

posting it, Randall made a new post, titled Barrel series, which is available above the Explanation on this page. In the first part of the post, he advertises the new page he created for "all the barrel comics", implying this was supposed to be the end of the The Boy and his Barrel series (the link is now defunct, but there's an archived version). In the caption of the previous comic, he also said "Tune in Monday for the conclusion to the story of the boy and his barrel". However, this would turn out to not be the last comic in the series, as 31: Barrel - Part 5 and 20: Ferret would be included later likely to give an unplanned good ending to the story. In the second part of the post, he jokingly implies that Barrel Boy passed away, which will be found to be incorrect in the actual last comic in the series.

#26: Fourier

January 01, 2006



That cat has some serious periodic components

Explanation

A Fourier transform is a mathematical function transformation often used in physics and engineering. The theory is that any line graph can be represented as the sum of a bunch of sine waves of different frequencies and amplitudes. (The most obvious application is in analyzing a sound recording in terms of the different frequencies of sounds used.) So, for any line graph, you can produce another graph of the frequencies and their amplitudes. This can be done by evaluating an integral based on the function, which is referred to as "taking the Fourier transform" of the function. The form of the integral that needs to be taken is actually shown in the third line of the comic 55: Useless.

Unfortunately, Cueball has applied this "transform" to his cat. Indeed, whatever he has done has literally transformed his cat into the shape of an amplitude line graph. Although the cat seems to be alive and largely unharmed, it is clearly not in its familiar shape, and it is not clear if this condition is permanent or not. Notably, the fact the cat is still alive relates to an important property of Fourier transformation: the information of the original graph is fully preserved and can even be reversed to produce the original graph. How a reverse Fourier transformation would apply to a transformed cat has yet to be seen.

Cueball is, in this particular comic, likely Jon from Garfield. The name of Garfield's vet in the comic is Liz,

and a recurring joke in that strip is Jon calling Liz to report various strange ailments befalling Garfield. "Periodic components" in the title text refers to the spikes in the graph. Because sine waves repeat themselves as you go along, the presence of large amounts of one particular sine wave in the Fourier transform graph (each spike) shows that the overall result (the initial graph) is likely to have parts that also repeat themselves, like a periodic function. In other words, the cat has repeating parts.

#27: Meat Cereals

January 01, 2006



Disgusting

Explanation

Randall parodies several real-world breakfast cereals (which typically consist solely of grains and sweet flavorings) by creating versions that contain meat (animal products). The cereals that appear to be parodied (clockwise from top-left) include Froot Loops, Rice Krispies, Honey Bunches of Oats, Apple Jacks, Frosted Flakes, and Cheerios. There does not appear to be a deeper meaning to this comic than that. The Scrapple Jacks parody (the only slightly obscure reference) appears to be made with scrapple, which, according to Wikipedia, is a mush of pork scraps and trimmings combined with cornmeal and wheat flour, often buckwheat flour, and spices. Real Apple Jacks ran an ad campaign in the 1980s and 1990s in which an adult or authority figure tasted the cereal and declared "these don't taste like apples!", thus missing the point of why kids liked the cereal. The slogan is parodied on the Scrapple Jacks box. Randall referenced this same slogan again in "38: Apple Jacks".

The title text apparently reflects Randall's opinion of his own creation.

#28: Elefino

January 01, 2006

Q: What do you get when you cross
an Elephant with a Rhino?



A: I haven't a goddamn clue.

Hell if I know

Explanation

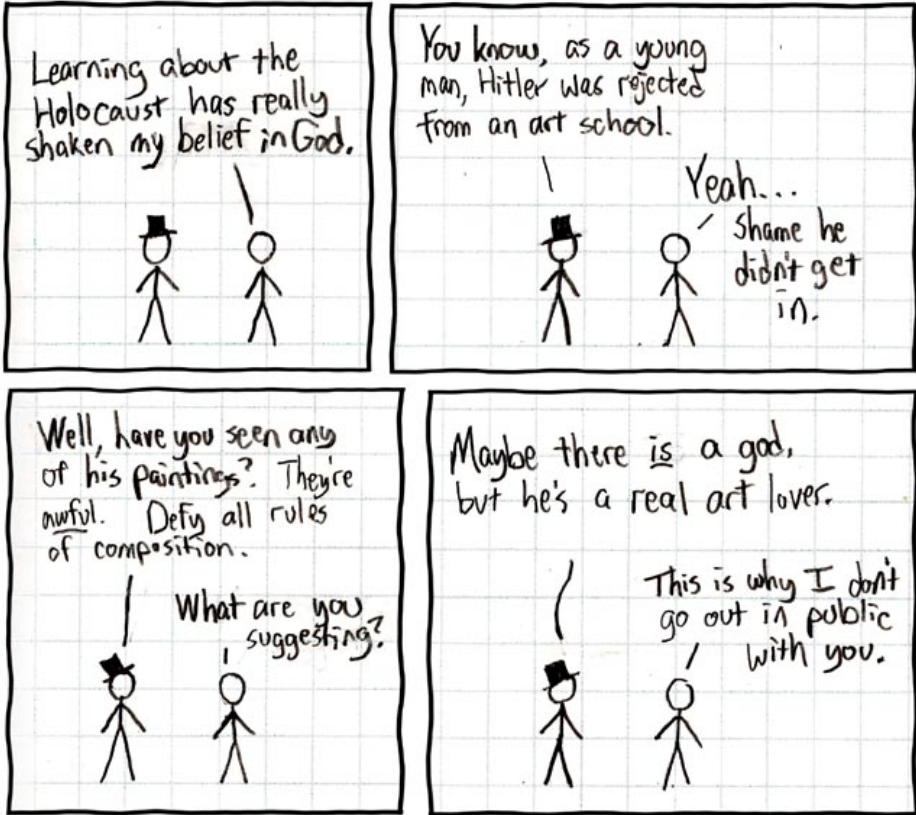
The title text and the title are both a play on sounds, both sounding like each other and in the different spellings give a literal answer to the riddle, "Eliphino". And a different phrasing of the original answer, "Hell if I know", which, when spoken out loud, sounds like the title of this comic, "Elefino". "Elephino" is a portmanteau of the words "elephant" and "rhino".

The comic presents a common joke starter, where you put to random objects together to a pun. "What do you get if you cross a duck with a firework" (a firequaker) Instead of giving a pun, the comic goes a more literal direction and unexpectedly says, "I haven't a goddamn clue", which still conveys the same meaning but ruins the joke instead of giving the punchline. As with many of the earlier comics, the title text explains the joke rather than adding to it.

This word play is reminiscent of the final scene in Buster Keaton's 1921 short film *The Boat* in which the titular boat is named the *Damfino*, a word play on "Damn if I know." Keaton answers his wife's question "Where are we?" by mouthing the name of the boat in the final scene. The filmmakers relied on audiences to read Keaton's lips, as his answer was not intertitled.

#29: Hitler

January 01, 2006



So he's saying that God thought Hitler's art was so bad that the Holocaust was an acceptable alternative. It's no secret that the hat guy is closely based on Aram, from Men in Hats.

Explanation

Cueball speaks to Black Hat about the Holocaust and Adolf Hitler. Hitler was the leader of Nazi Germany beginning in 1933 and starting World War II in 1939 by attacking Poland. During that war, the Germans (under Hitler's leadership) killed millions of people; most of them were Jews, but other ethnic groups, homosexuals, and the mentally disabled were all targeted as well. This has come to be known as the Holocaust. Black Hat's comment that Hitler wanted to be a painter, but did not get into art school, is historically accurate. He applied to the Vienna Academy of Fine Arts twice. In any event, Cueball implies in the second frame that had Hitler been accepted into art school, the course of history might have changed, and the Holocaust might never have occurred. Black Hat suggests that perhaps God intentionally prevented Hitler from becoming an artist because God is an "art lover" and Hitler's art was terrible.

As with many of the earlier comics, the title text explains the joke rather than adding to it. It implies that God would have preferred the Holocaust to have occurred rather than allow Hitler to make some bad paintings. Such a comment that God could be so callous would surely be offensive to many people. Cueball's reaction to this shocking statement is relatively mild and suggests that Black Hat has made such controversial statements before. He will make a similarly controversial and Nazi-related statement again in 984: Space Launch System. The title text also says Black Hat is based on a

character named Aram from a now discontinued webcomic called Men in Hats and, in the original caption, Randall directed the user to a specific Men in Hats comic about parenting. Like Black Hat, Aram frequently made judgmental, insulting, or controversial comments in a very emotionless manner. Aram wore a dark grey suit with a red bowtie and a black top hat with a white strip above the brim. Black Hat's hat clearly evolved from the top hat design later in xkcd.

#30: Donner

January 01, 2006



Some people haven't heard of the Donner Party. They were pioneers who got stranded and likely resorted to cannibalism.

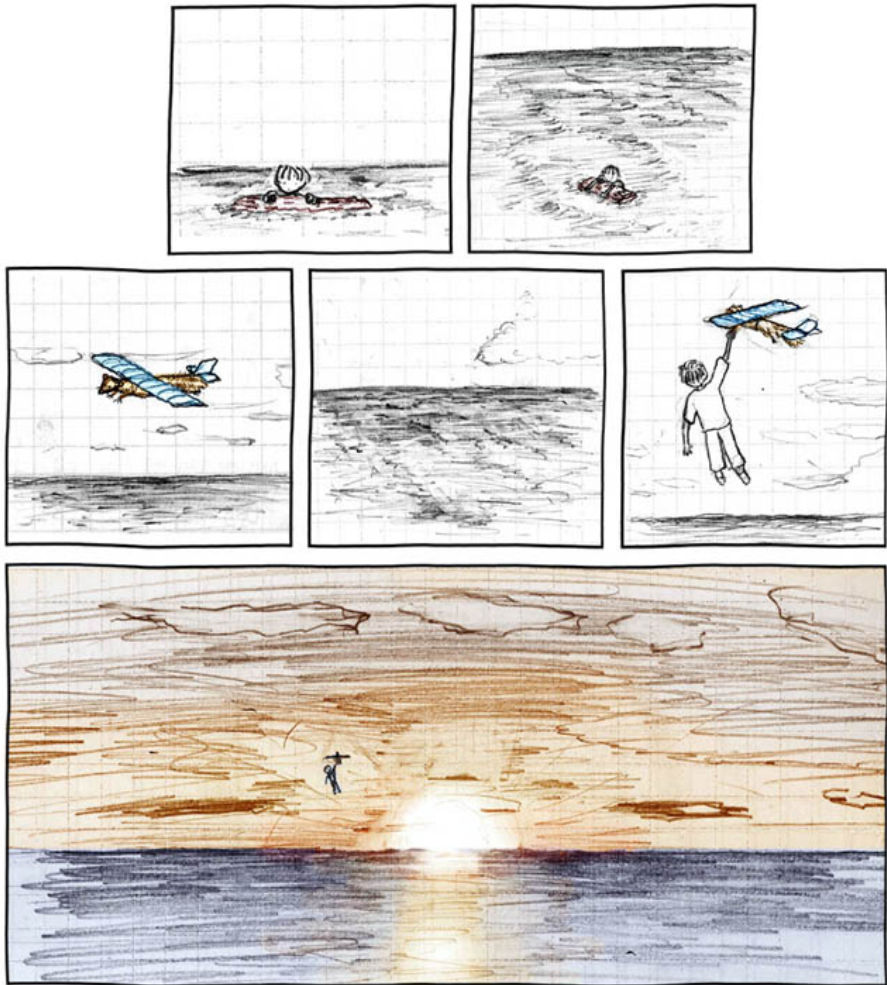
Explanation

The Donner party was a group of pioneers who set out west along a new route that was supposed to be easier to travel, but ultimately proved slow and treacherous. They became trapped in the Sierra Nevada mountains, and many died. It is believed that many of the pioneers, low on food, resorted to cannibalism, eating the bodies of party members who had already died. In this comic, three Donner party members arrive at Joe's restaurant, where they have ordered a table for four, as given by the fact that the maître d' knows they are the Donner party and calls for a party of four. The three decline the table since they are already full. This suggests that they just have eaten the fourth member (unknown to us) of their party after they placed the order for a table at the restaurant, but before they strolled over to it anyway. Of course, since they are not in a survival situation in this comic, cannibalism would be completely unnecessary. However, it may be possible that they are suffering from Wendigo Psychosis. Alternatively, the Donner Dinner Party may have resorted to cannibalism because it took so long to be seated at the restaurant.

As with many of the earlier comics, the title text explains the joke rather than adding to it.

#31: Barrel - Part 5

January 01, 2006



Too good not to happen.

Explanation

This gives a happy ending to the The Boy and his Barrel series, with the flying ferret from 20: Ferret. The humor is derived from the juxtaposition of two unlike elements - in this case, the contemplative and even dark nature of the series being resolved through the timely intervention of a comical flying animal. The ferret could also be interpreted as a symbol of hope and following one's dreams, since in its original appearance, its powers of flight were just a dream. However, the dream becomes reality to save a child from an endless sea of hopelessness.

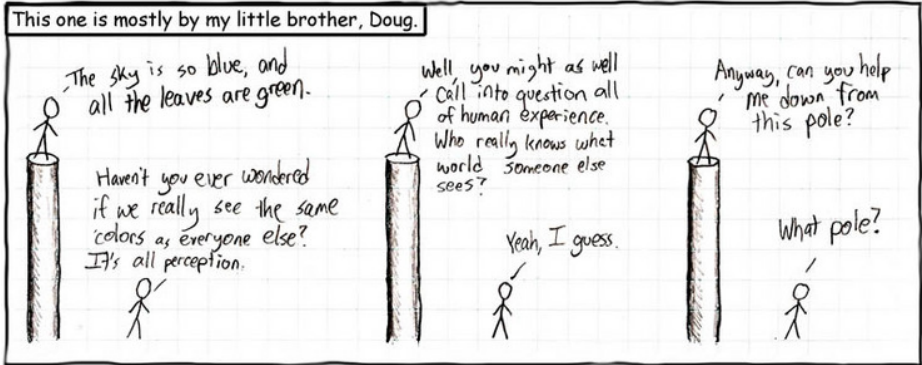
This is the last in a six-part series of comics whose parts were randomly published during the first several dozen strips. The series features Barrel Boy, a character that is different from what would quickly become the xkcd stick figure style. The full series can be found [here](#). After Randall released the full The Boy and his Barrel story on the site, it became clear that the original comic 20: Ferret was also part of the series. The comics are listed in the order chosen by Randall:

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The original caption included a link to 20: Ferret the second comic in the series. The link is now defunct, but there's an archived version.

#32: Pillar

January 01, 2006



A comic by my brother Doug, redrawn and rewritten by me

Explanation

Two Cueball-like guys ponder the unanswerable philosophical question of whether all people observe the universe the same, or whether, for example, what one person sees as "red" might be what another see as "green". They muse that no one really knows how anyone else sees the world. The misdirection and punchline of the comic come when the pole-guy asks if his friend can help him down from this pole where he's been standing for the entire comic. The friend's reply indicates that he does not see a pole, proving that one person can observe the world differently than another, in this case, in a far more extreme and unexpected way than color differences.

Another interpretation of the punchline is that the friend doesn't like pole-guy's idea of questioning all of human existence and mocks that philosophy by pretending not to see that he is standing on a pole. The concept of a philosopher on a pole is likely a reference to many "stylites" or "pillar-saints" of the late antiquity period, perhaps the first and most famous them being Simeon Stylites. Unlike most other xkcd comics, the "panels" of this comic are not divided and are drawn within a single frame.

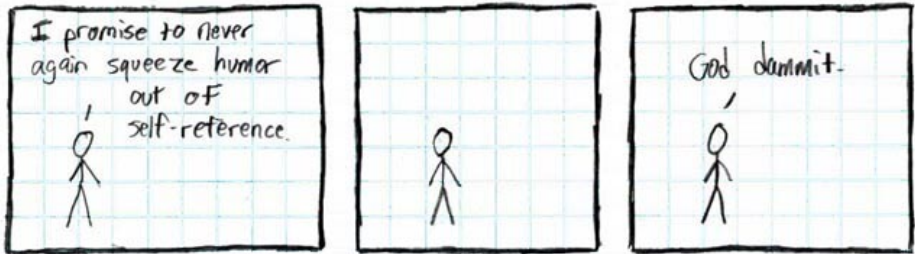
The title text and the original caption say the comic is based on a comic drawn by Randall's brother Doug, although Randall apparently redrew and rewrote it. In the original caption of the LiveJournal post, he also apologizes for forgetting to post the comic on a Friday

and reminds people of the link he created to group all the comics in the The Boy and his Barrel series, because the previous comic was the last episode in the series. The link is now defunct, but there's an archived version.

Note that the caption at the top is in Comic Sans.

#33: Self-reference

January 01, 2006



I think about self-reference a lot. Example: this comment.

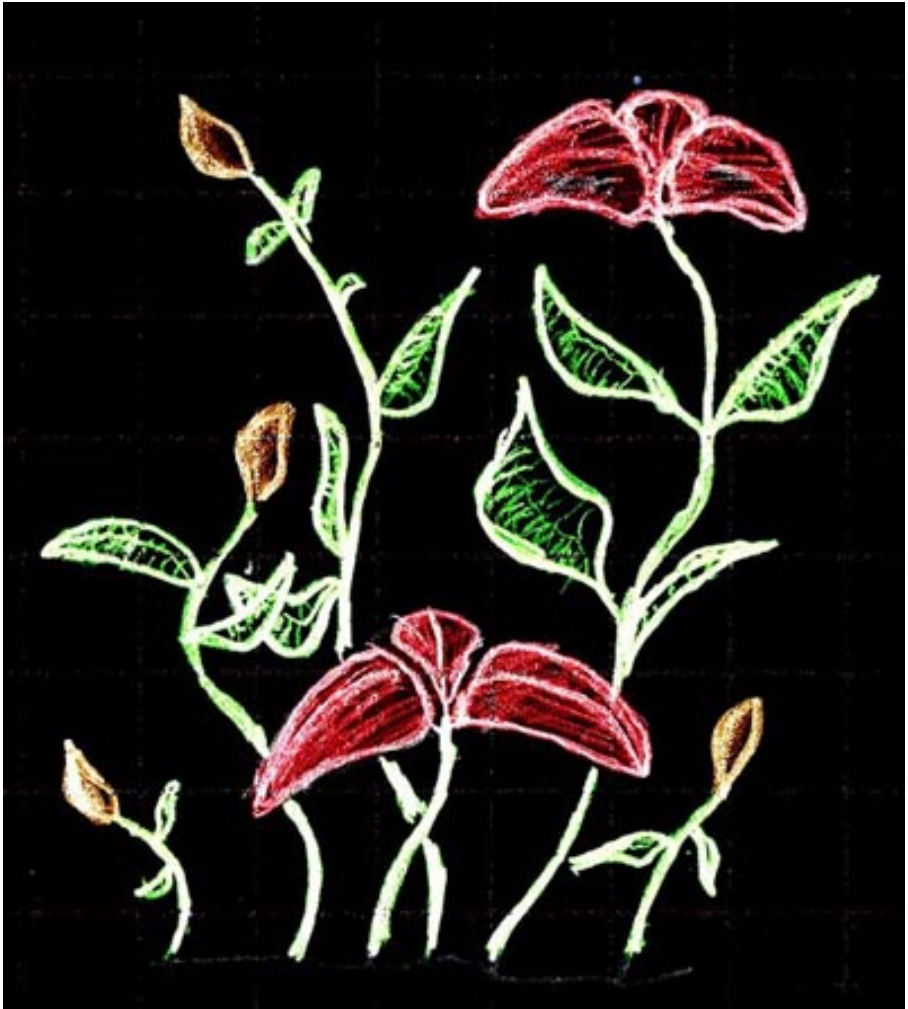
Explanation

Self-reference is a situation where something (a comic, a drawing, a musical work, a novel, a mathematical theorem) refers to itself in some manner. This can be a powerful technique in art, music, mathematics, and computer science (it is the basis of recursion). In this comic, Cueball promises not to use self-reference for humor, and then realizes after a beat panel that, since this comic is referring to the series of comics he is part of, he is using self-reference, thus breaking his promise. Without the last panel, this comic wouldn't be funny, and therefore wouldn't break the promise about using self-reference for humor. But with it, and his realization that he is breaking his promise, it does break that promise. Self-references would be most famously used later in 688: Self-Description, but also in 6: Irony and many other comics.

The title text is just another humorous self-reference, which cites itself as a reason for Cueball/Randall thinking about self-reference, becoming self-referential in the process.

#34: Flowers

January 01, 2006



This is actually pencil on paper, just inverted and colored

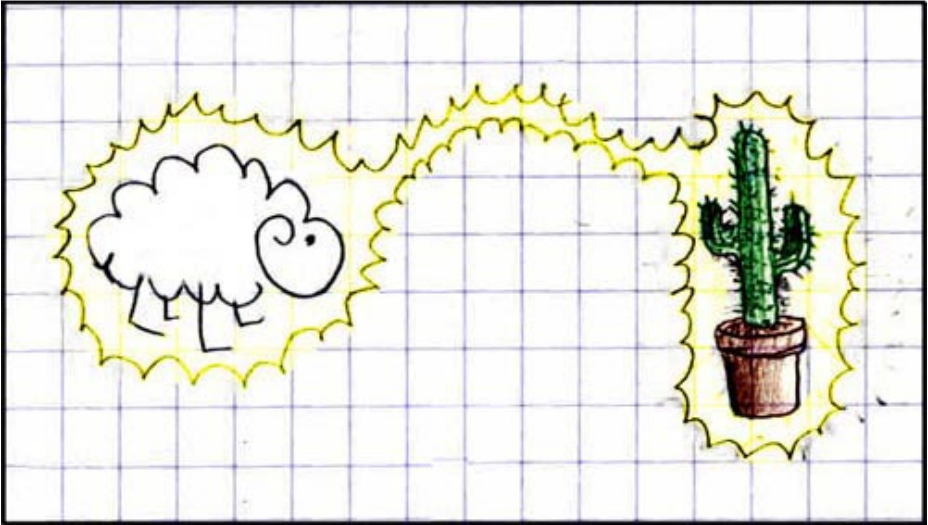
Explanation

Explanation section not found.

#35: Sheep

January 01, 2006

Another from my high-school notebooks.



I think it's the sheep zapping the cactus and not vice-versa

Explanation

Due to Randall's vacation, he picked out comics from his old high-school notebooks for the second time in a row. The comic 520: Cuttlefish may be a reference to this comic. It may also be a Pokémon reference, with the sheep being the Electric type Mareep or its evolution Flaaffy, and the cactus being Cacnea or Cacturne.

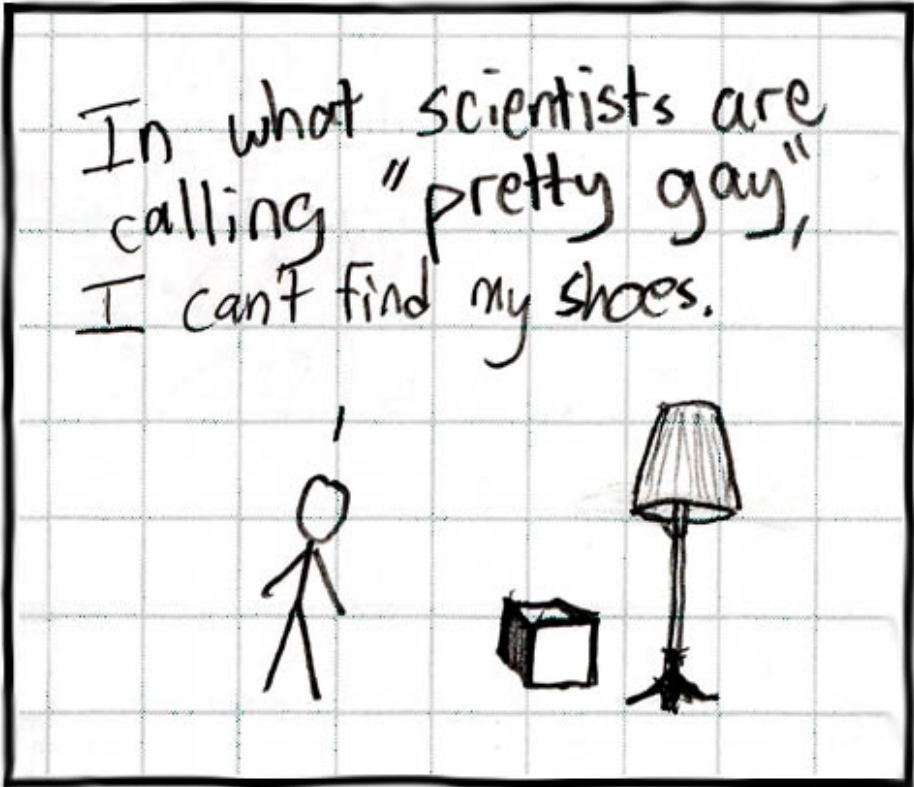
The title text suggests that it may be the sheep that is zapping the cactus, while the original caption apologizes for the late comic release. This is the second time in a row that a Friday comic was released on a Saturday, as 32: Pillar was also released late.

Poem by Scott[edit]

In the comment section of the original LiveJournal post, Randall's friend Scott posted a poem about the sheep in the comic.

#36: Scientists

January 01, 2006



A leading expert characterized the situation as 'retarded'

Explanation

This comic plays on the type of statement that news reports often use: "In what [group of experts] are calling '[quote]'," to add more weight and credibility to their stories. In this case, Cueball is using the phrase to attempt to add gravitas to the (relatively mundane) fact that his shoes are missing, and he thinks it's "pretty gay" by assigning this opinion to scientists (rather than it being, presumably, his friend's or his own opinion). The same joke is at play in the image text where a leading expert thinks the situation is "retarded."

The phrases "pretty gay" and "retarded" are infantile and offensive slang for "foolish" or "contemptible", and so they are the opposite type of speech expected of experts on news reports. These terms were not generally considered more than mildly offensive by most of the public at the time this comic was posted. The cultural mainstream is now typically much more critical of this type of language, and this comic would likely be heavily criticized if it were published today.

There may be a second level to the joke: Randall was still working for NASA at the time the comic was posted, so his friends at that time would presumably include scientists and "leading experts". If his friends made fun of him for not being able to find his shoes, it would therefore be accurate to say that scientists had made those statements. However, since them being scientists is irrelevant to the legitimacy of their opinions about

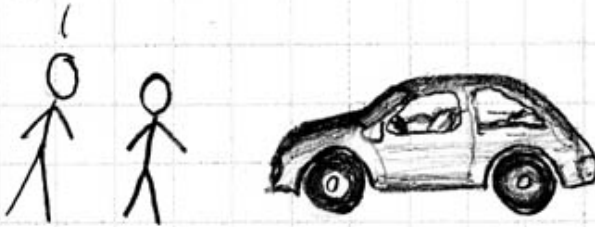
Randall's shoe problems, presenting their teasing as an expert opinion is humorously misleading; a similar joke is at play in 1206: Einstein.

#37: Hyphen

January 01, 2006

My hobby: Whenever anyone calls something an [adjective]-ass [noun], I mentally move the hyphen one word to the right.

Man, that's a sweet ass-car.



I do this constantly

Explanation

This is the first comic in the My Hobby series. In these comics, Randall suggests an obscure activity or pastime he enjoys that he declares as his "hobby". The semi-scatological suffix "-ass" is used as an intensifier in informal US English speech, usually attached to an adjective directly modifying a noun, as in "big-ass car" or "funny-ass comedian." In this comic, Cueball is exploring the increased humor aspect of changing "-ass" from a suffix modifying the adjective, to "ass-", a prefix modifying the noun, yielding a "big ass-car" or a "funny ass-comedian," the former presumably being a large car for carrying buttocks, the latter being a humorous comedian specializing in jokes about lower backs. The prefix "ass-" may also have a negative connotation, indicating that something is disliked. An "ass-car" may be a very terrible car, for example. On an interesting note, there used to be a car company called "A.S.S.". Another explanation would be that, since this suffix/prefix refers to an element of human anatomy, the car would be in the shape of said anatomical piece. (Or, conceivably, something to do with donkeys.)

In the original caption, Randall said the next comic would be the "conclusion" to the The Boy and his Barrel series. However, 25: Barrel - Part 4 would turn out to not be the last comic in the series, as 31: Barrel - Part 5 and 20: Ferret would be included later likely to give an unplanned good ending to the story. Three hours and four minutes after posting 25: Barrel - Part 4, he made a

new post, titled Barrel series, where he advertises the new page he created for "all the barrel comics", implying it was supposed to be the end of the series. He also jokingly implies that Barrel Boy passed away, which will be found to be incorrect in the actual last comic in the series. The entire post can be found in that comic's explanation.

#38: Apple Jacks

January 01, 2006



There used to be these ads, see ...

Explanation

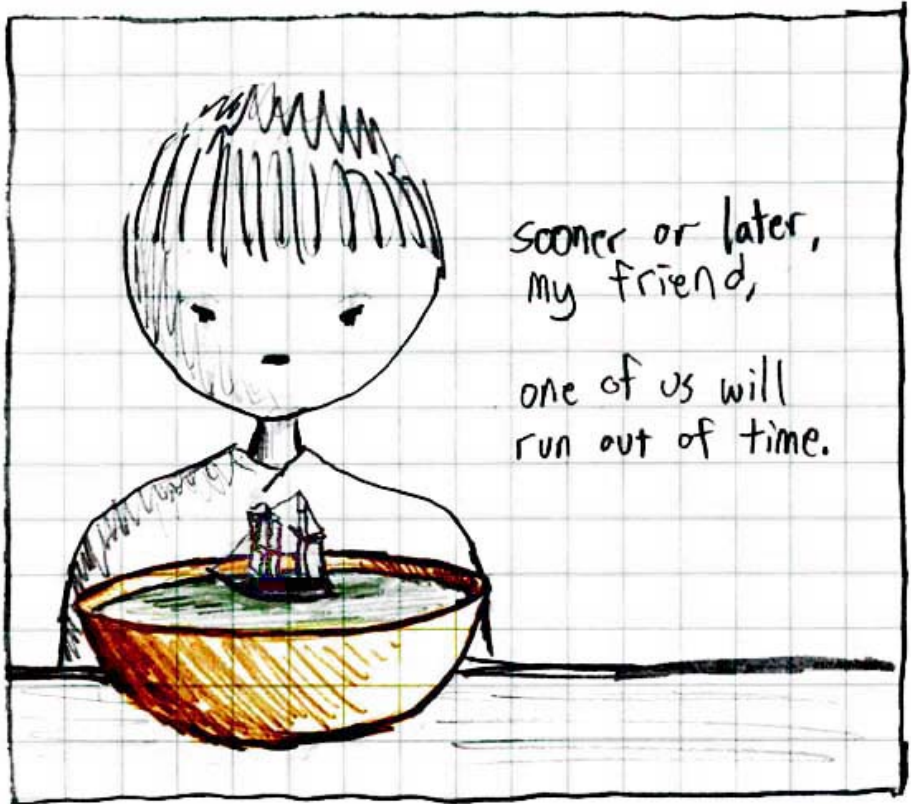
Apple Jacks is a breakfast cereal produced by Kellogg's. As the title text begins to explain, there was an ad campaign for the cereal in the 1990s that focused on someone (usually someone in authority like a parent) pointing out that Apple Jacks doesn't taste like apples, and one or more kids pointing out that it doesn't matter and that "we eat what we like". However, instead of laughing off his dad's comment and correcting him, as in the campaign, this son responds by simply saying "Fuck off, Dad."

This could be a commentary on today's youth being far less respectful, as the son is playing video games and seems annoyed at being interrupted, though this does not align with Randall's public views. It may not be the first time the father has used the line, and the son is irritated by the repetition. It could also be saying that the response in the ads is unrealistic, and this is a much more realistic response. The same ad campaign was referenced previously in 27: Meat Cereals on a parody cereal labelled Scrapple Jacks. Cereal advertising would be referenced again in 1470: Kix.

As with many of the earlier comics, the title text and the original caption help explain the joke rather than adding to it.

#39: Bowl

January 01, 2006



For the moment it's a standoff

Explanation

The comic roughly parodies a situation in which two characters are seeing who can wait longer to get the result they want. However, in the comic, the model sailing ship is not alive and doesn't experience time (except perhaps if it absorbs water and falls apart or beaches once the water in the bowl evaporates). The comic compares the patience of a boy with that of an inanimate object. Also, it could imply that the boy has too much time on his hands. Like many of the earlier comics, some of this comic's humor comes from the surreality of the situation. The gravity of the boy's statement is juxtaposed with the insignificance of a child's toy floating in a bowl of water. On one level, the absurdity of this is funny in itself; on another level, the audience is invited to imagine what might possibly be going through the boy's mind to make him take this toy and bowl so seriously.

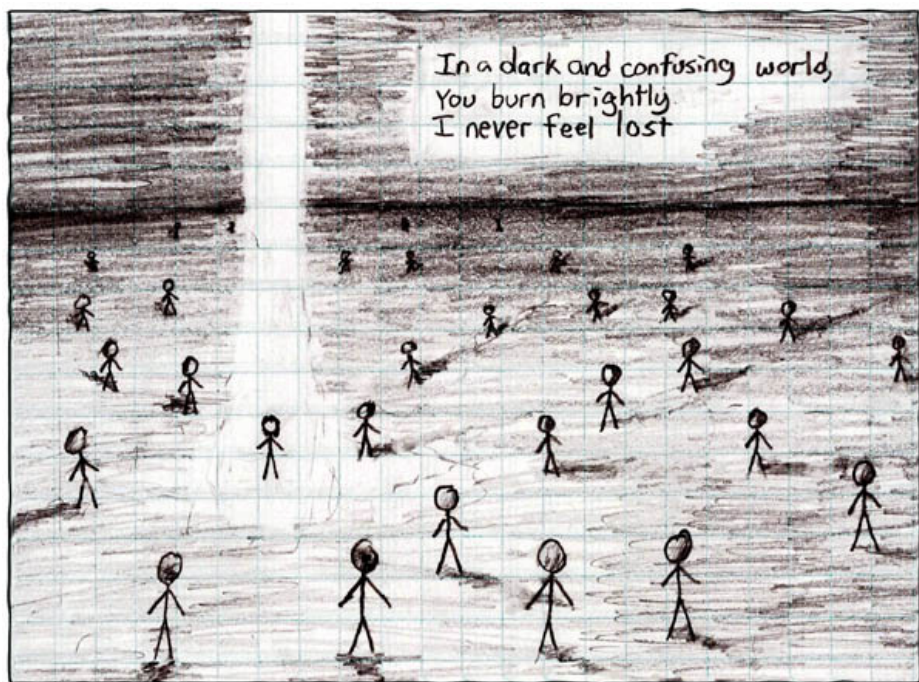
Alternatively, the comic can be taken to recognize the mortality and ultimate fate of death/decay for both the boat and the boy, creating a grim moral. But, if one goes deeper into meaning, one could realize that the comic itself is humorous for trying to make a fatalistic statement using a boy and a toy boat, still making the comic ultimately humorous.

In the original caption for this comic, Randall states that this is not Barrel Boy because it would be easy to draw some parallels. They have a similar hairstyle and Barrel

Boy was floating on the water in a barrel, while this boy is looking into a bowl filled with water.

#40: Light

January 01, 2006



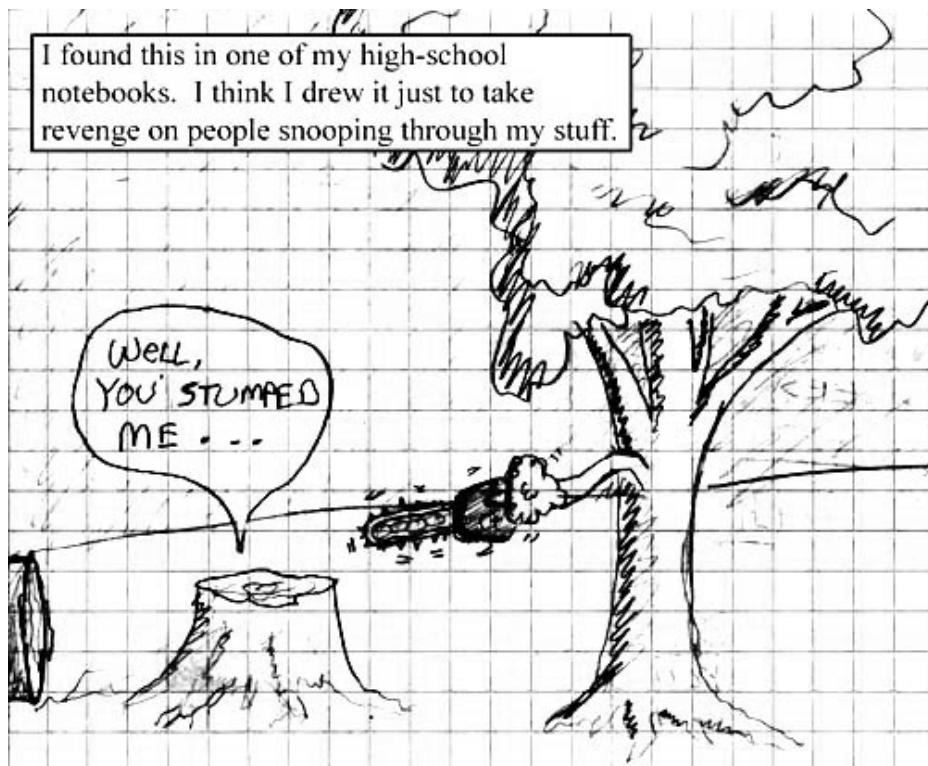
Like a beacon

Explanation

Beacons, often in the form of lighthouses, were built on coasts to give ships a point of reference where land was, so that they could find where they were going, and to know where they should avoid during a storm. In the comic, Megan fills this role for Cueball: she is his beacon to know where he can be safe. This also has a romantic notion, as Megan is lighting up the world for Cueball to find her.

#41: Old Drawing

January 01, 2006



I don't want to talk about it

Explanation

This comic plays off the pun between stumped, meaning confused or at a loss, and a tree stump, which is the remnants of a tree that has been cut down. Anyone snooping into his journal would be punished by such a terrible pun. In the title text, Randall says the pun is so terrible he doesn't even want to talk about it.

#42: Geico

January 01, 2006



David did this

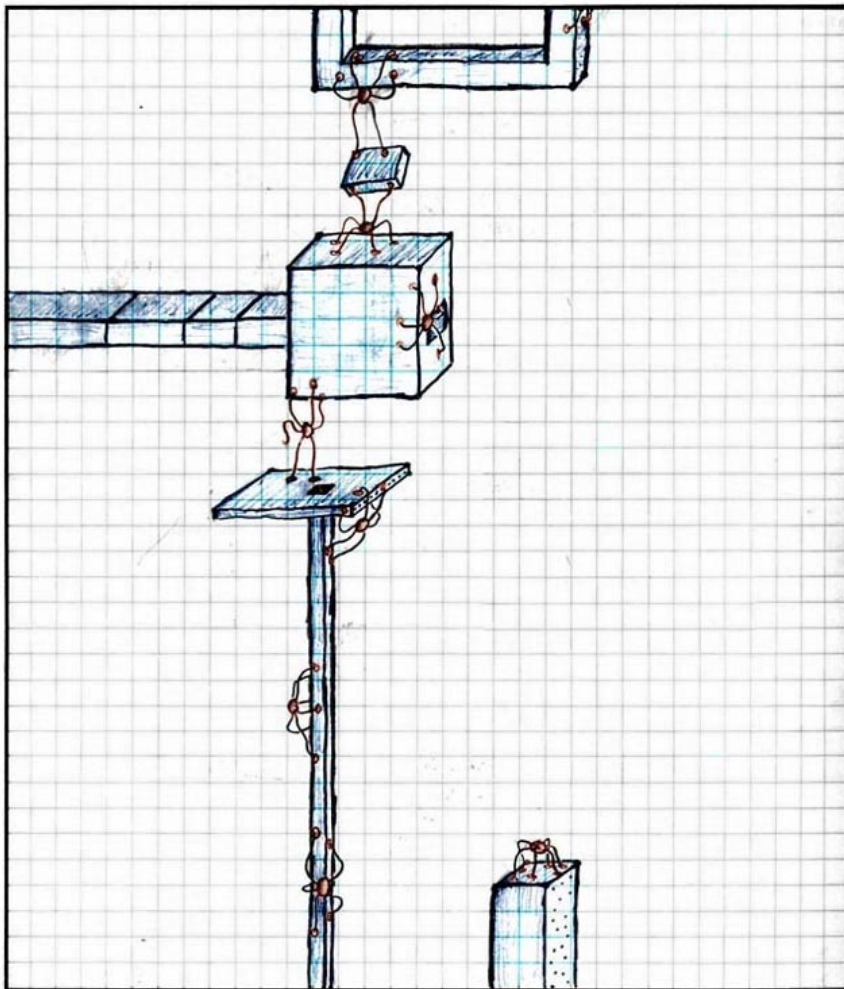
Explanation

This comic references a long-running ad campaign for Geico insurance in which a character (different in each commercial) lists a series of horrible events or news, but then caps it off with "but I've got good news: I just saved a bunch of money on my car insurance by switching to Geico" – news that may be good, but is usually either trivial compared to the magnitude of the preceding bad news, or else is said to the person whom all of the preceding bad news applied to, giving them false hope that the good news was for them. It became a recognizable pop culture phrase. In this one-panel comic, Cueball parodies the punchline by saving money on his car insurance by intimidation, instead of choosing the best provider. A golf club would later also be used for similarly socially unacceptable actions in 81: Attention, shopper, and Geico's ad would be mentioned again in 870: Advertising.

In the title text, Randall attributes this comic to the unknown friend David. He does the same in 51: Malaria and 100: Family Circus. We can assume (or rather, we can hope) that "this" refers to the act of writing the comic, as opposed to the act of threatening his insurance agent.

#43: Red Spiders 2

January 01, 2006



This was actually drawn years before Red Spiders

Explanation

This is the second comic in the Red Spiders series, published just over 2 months after the first one. Like its predecessor, it is more of a sketch than a comic. The titular spiders appear to be ascending—or possibly building—a structure, probably to get into the window at the top of the picture. Two spiders at the top appear to be passing a block between them, implying that they are, at least, trying to change the structure.

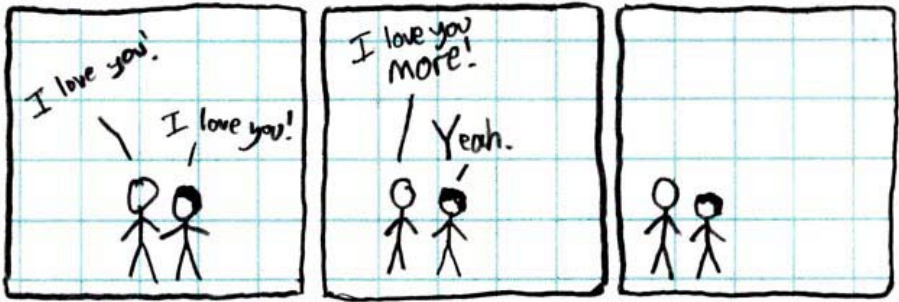
In the title text, Randall says the comic was drawn years before the previous Red Spiders despite being posted later.

The full series of Red Spiders comics:

- 8: Red Spiders, the first one.
- 43: Red Spiders 2, this one.
- 47: Counter-Red Spiders, in which the humans begin a counter-offensive.
- 126: Red Spiders Cometh, in which the spiders attack a city.
- 427: Bad Timing, in which, in a style more typical to xkcd, the spiders attack a couple in the middle of a serious relationship discussion in a hot-air balloon.
- 442: xkcd Loves the Discovery Channel, in which it appears briefly in the 14th panel crawling over a cube.

#44: Love

January 01, 2006



This one makes me wince every time I think about it

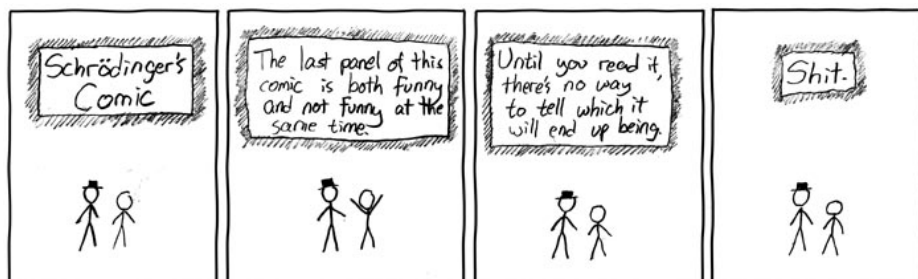
Explanation

This comic expresses the view of a love that is unbalanced and unequal. And how one form of love can be painful when closely examined. It is customary for people in a romantic relationship, when one makes a declaration of love or affection, for the other to make a matching declaration. However, instead of continuing Cueball's escalation by saying the expected response "I love you more!", Megan stops and agrees with him: he does in fact love her more than she loves him. This leads to an uncomfortable dynamic in the relationship, and the final frame shows the couple awkwardly standing in silence.

In the title text, Randall expresses how this comic is shockingly stark in its portrayal of love.

#45: Schrodinger

January 04, 2006



There was no alt-text until you moused over

Explanation

This comic is a joke creating a humorously false synthesis, combining the principles of quantum superposition and the effects of reading a comic one panel at a time. Schrödinger's cat is a thought experiment that illuminates the notion that a particle only resolves itself to its state upon observation, and until such observation is made, it is in all of its possible states simultaneously. In the thought experiment, a cat is both dead and alive until observation; likewise, in this comic, Black Hat and Cueball are likening the last panel to the box with the cat: until you read it, it is in a mixed state (a superposition) of both funny and unfunny. Finally, in the last panel, both of them say "Shit." The joke is that after reading the last panel, the comic is both funny (as it is unexpected) and not funny (as the last line was a non sequitur and therefore there is no climax) at the same time, thus proving Black Hat and Cueball wrong, hence them expressing discontent with the word "shit."

The title text, which Randall here unusually calls "alt-text", implies that it might only come into existence when the mouse over action takes place. This is another reference to the Schrödinger's cat concept, where the user can't determine if the title text exists until they hover the mouse over it. So, prior to hovering, the title text might be absent or present.

Schrödinger's cat[edit]

Schrödinger's cat is a famous thought experiment proposed by

Erwin Schrödinger to question the Copenhagen interpretation of quantum mechanics. Under the Copenhagen interpretation, any particle is described by a wave function that allows one to calculate the probability that it is in any given state. A radioactive nucleus with a half-life of one hour, for instance, would have a wave-function that would split, showing two distinct states (decayed, undecayed) that change over time until some "observation" forced the wave-function into one state or another (called "collapsing the wave-function"). Before the wave-function is collapsed, it is incorrect to say that the atom has decayed or has not decayed; it is in a "superposition" of states, effectively both decayed and undecayed.

Schrödinger thought that the Copenhagen interpretation was absurd and devised a thought experiment to demonstrate it. The experiment consisted in putting a cat in a box with a device triggered by the decay of an atom with a half-life of one hour that would release a poisonous gas if triggered. Then, after waiting an hour, the Copenhagen interpretation would say that the atom is in a superposition of decayed and undecayed states, and thus, by extension, the cat would be in a superposition of alive and dead states. Only when the box is opened would the wave-function for the cat collapse into either alive or dead states. This thought experiment is not meant to be taken literally, as every interaction of a particle with another constitutes an observation, and many particles must interact for a cat to die, but still his argument was that since it is absurd for a cat to be both alive and dead, it is absurd for an atom to be both decayed and undecayed. If this experiment were to be performed, the cat would not be both dead and alive.

#46: Secrets

January 06, 2006



I'm a big fan of Kurt Halsey

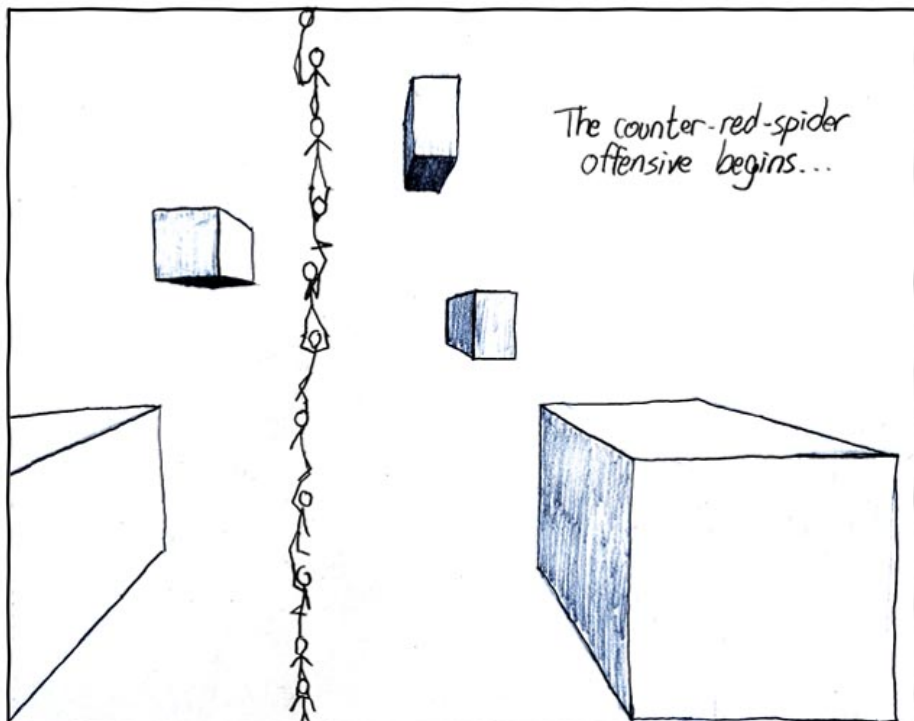
Explanation

This comic addresses the issue of commitment-phobic partners, people who get into relationships but get cold feet when it starts to get serious. The girl in the comic wants someone who can see every part of who she is and still love her.

In the title text, Randall mentions that he is a big fan of Kurt Halsey, a comic artist from Oregon. His style is similar to that in this comic. Many of his comics and paintings depict a couple and convey various emotions they go through, as does this comic. In the original caption of the LiveJournal post, he provides a link to the homepage of Kurt Halsey and praises him for "how much better at this he is" than Randall. The link is now defunct, but there's an archived version.

#47: Counter-Red Spiders

January 09, 2006



I hope we can stop them

Explanation

In previous comics, red spiders are seen navigating similar landscapes. Here, humanoid stick figures are standing on top of each other to reach some place above the top of the comic, in a similar manner to how the red spiders navigate, in order to engage in a counter-offensive against the red spiders. These stick figures must be extremely light, or gravity must be really weak there, because it is extremely unlikely or even impossible to have a stack of humans that tall.

The title text indicates that Randall hopes the counter-offensive is able to prevent the red spiders' attack. However, the invasion in Red Spiders Cometh suggests that it may have been unsuccessful. In the original caption, he provides two links to the images of the previous comics. The links are now defunct, so here's the caption with the archived versions of the links: "They must be stopped."

The full series of Red Spiders comics:

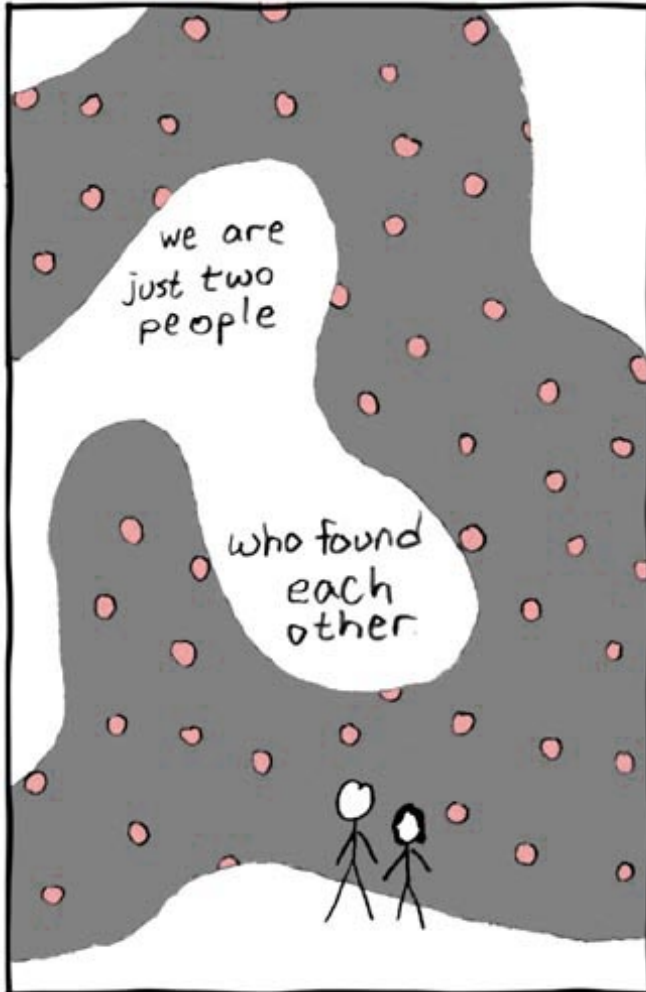
- 8: Red Spiders, the first one.
- 43: Red Spiders 2, in which the spiders begin building.
- 47: Counter-Red Spiders, this one.
- 126: Red Spiders Cometh, in which the spiders attack a city.
- 427: Bad Timing, in which, in a style more typical to xkcd, the spiders attack a couple in the middle of a

serious relationship discussion in a hot-air balloon.

- 442: xkcd Loves the Discovery Channel, in which it appears briefly in the 14th panel crawling over a cube.

#48: Found

January 12, 2006



No more, no less

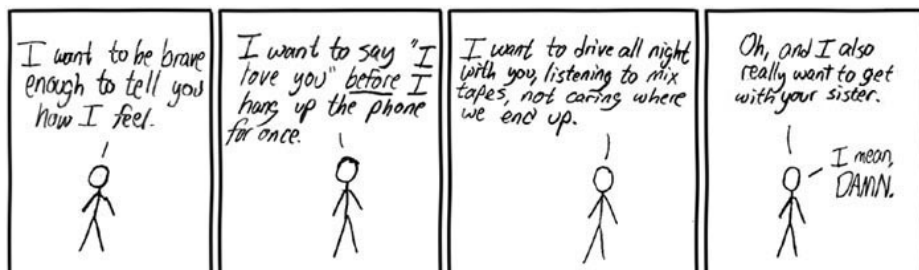
Explanation

Cueball and Megan are standing together in the middle of a strangely expressionist landscape/environment. As indicated by the words in the comic, they have simply found each other, implying that there is no relationship between them other than running into each other.

As indicated in the title text, there is nothing else to say about how they met. In the original caption, Randall reassures his audience that he hasn't stopped making nerdy comics and puns, because a few of the previous comics diverged from these topics. 47 covered Red Spiders, and 46 covered relationships. The next comic, 49: Want, returned to xkcd humour.

#49: Want

January 14, 2006



Well, she's pretty hot.

Explanation

Cueball is making an honest profession of his feelings. This is often held up as a valuable thing in cementing a relationship. In the first three panels, he makes the kind of clichéd poetic, romantic statements that would typically be expected. In the last panel, however, he undercuts all of this by crassly revealing that he also really wants to have sex with his paramour's sister. This theme would later be used in 279: Pickup Lines, 317: That Lovin' Feelin', and panel 20 of 442: xkcd Loves the Discovery Channel.

In the title text, Cueball attempts to excuse his statement by reasoning that the sister is incredibly attractive.

#50: Penny Arcade

January 17, 2006



Of course, Penny Arcade has already mocked themselves for this. They don't care.

Explanation

Penny Arcade is a popular web comic that focuses on video game culture. The character in the comic is Tycho Brahe, one of the two main characters of the webcomic (the other being Jonathan "Gabe" Gabriel). Penny Arcade has a reputation for making obscure references to video games without explaining, expecting the reader to be as well-versed in gaming culture as they are, represented by the attitude shown in this comic. 'Seiken Densetsu', as mentioned in the strip, probably refers to Seiken Densetsu 3, an Action role-playing game (Action-RPG) released for the Super Nintendo Entertainment System (SNES) in Japan in 1995, later to be known by the English title of Trials of Mana. The game was neither released in the North American region nor officially translated to English until the release of Collection of Mana on June 11, 2019, more than thirteen years after this strip. However, many North American game players might also have recognized Seiken Densetsu 2, the predecessor in the series, by its North American name of Secret of Mana.

The title text acknowledges they know they behave like this, but they are indifferent to it and even joke about it into their own comics.

#51: Malaria

January 18, 2006



The malaria party was David's idea

Explanation

This comic humorously considers pox parties as a means of preventing malaria. During these "parties", adults gather their children to deliberately expose them to a communicable disease in order to promote immunity. These parties are based on the fact humans can develop an adaptive immune response after being infected by a communicable disease by producing antibodies that will recognize future infections of the pathogen. For some illnesses, such as chickenpox, this response is particularly effective in reducing the seriousness of future infections in individuals with healthy immune systems. Furthermore, some illnesses, including chickenpox, are also thought to be less severe when the initial infection occurs in childhood, rather than adulthood. So, even though vaccinations remain a safer and more effective means of preventing severe disease, pox-parties may be held under the assumption that children will benefit from contracting an illness (and developing antibodies against it) while they are still young and the disease will be, in theory, less severe. Moreover, because transmission is planned/expected (at least for the 'guests'), those concerned may feel that they are more prepared to watch for and deal with the illness than if infection had occurred during some unpredictable future occasion.

However, there are major differences between poxes and malaria that make the idea of a malaria party especially absurd:

Therefore, the humor of this comic comes from the fact that the party-goers did not anticipate that their plan would be an uncomfortable and ineffective means of transmitting malaria between them, let alone preventing it, under-scoring the absurdity of such a party.

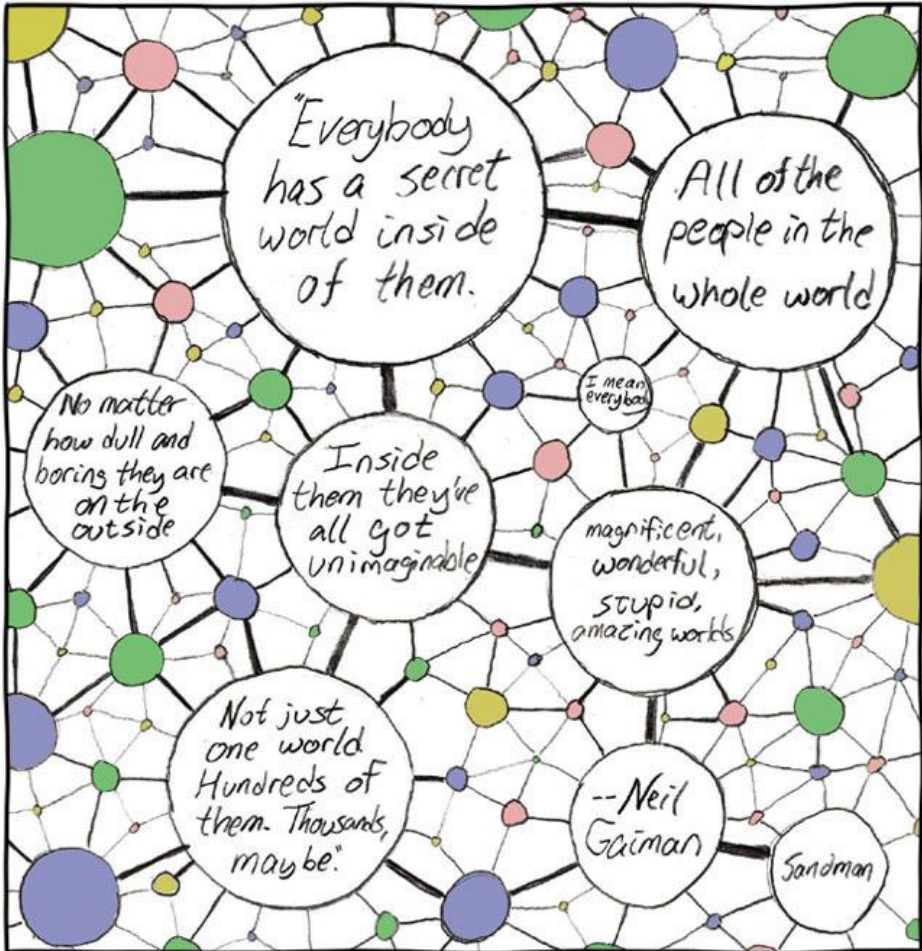
The title text blames David for the idea, while the original caption just seems to give him credit. He also mentioned David in 42: Geico and 100: Family Circus.

Vaccination[edit]

At the end of the 1990s, a study reported what would turn out to be made-up health threats from MMR-vaccines, which created an MMR vaccine controversy and lower vaccination rates, even after they were exposed as false. This made pox parties more popular as the "natural alternative." However, even usually-"harmless" diseases like measles can (rarely) have complications and side-effects, up to and including death, which are by far more common and/or more severe than the actual health risks involved in vaccination. In the past 20 years, 2 Americans died from measles, both people with compromised immune systems. Also none, or late immunization, may create an immunization gap through which nearly extinct diseases can reenter a population (see e.g. Epidemiology of measles). If this gap can be closed (or made small enough), it is possible to make a disease extinct. This was actually successfully done with smallpox, and is now attempted with the poliovirus (Causing poliomyelitis, also known as infantile paralysis). A comic with poliovirus eradication as topic has been released.

#52: Secret Worlds

January 21, 2006



No two adjacent circles are the same color.

Explanation

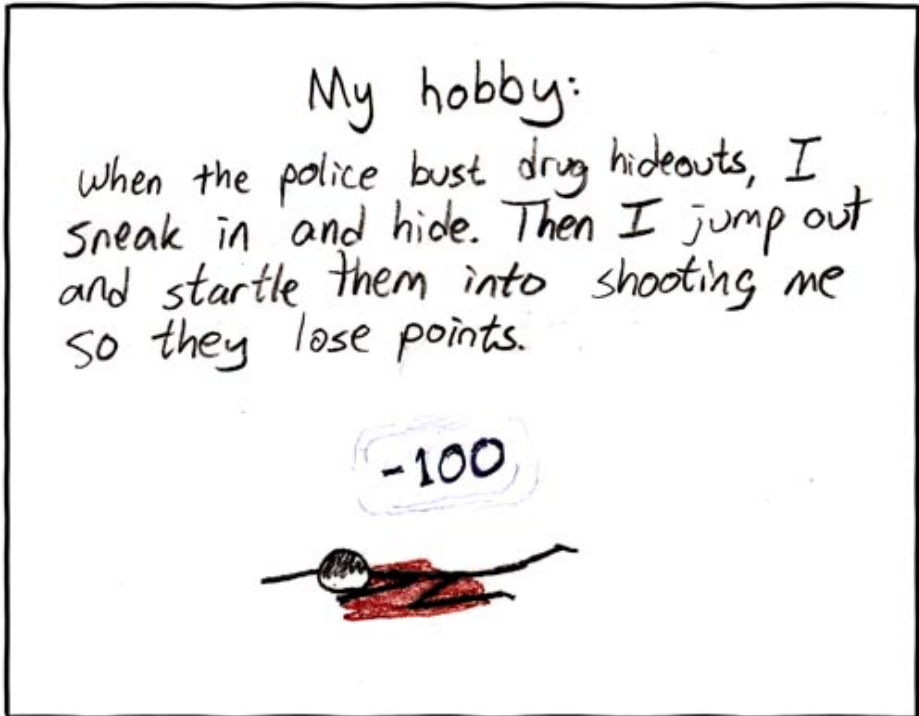
The quote written in the large white bubbles comes from *The Sandman*, a comic book series about dreams. Neil Gaiman is a science fiction and fantasy author who came to fame for writing *The Sandman*. The interconnected bubbles represent the secret worlds of different people and how they are connected. They may have the second meaning of the neurons in our brain.

The title text suggests that Randall used the Four color theorem, which states that a graph drawn on a flat plane (like this one) requires at most four colors so that each region differs from all of its neighbors. Whilst the comic uses four colors (red, yellow, green, blue), this clearly does not include the white bubbles with text. Nor can the white bubbles be replaced with a different colour: each white bubble is connected to all four other colours.

Here is the original quote:

#53: Hobby

January 23, 2006



The only one of these games I really played was Area 51

Explanation

This is the second comic in the My Hobby series. It humorously compares the rules of light gun cabinet arcade video games with real life. Randall suggests that his hobby is going to drug busts with the expressed purpose of getting shot as an innocent bystander, thereby causing the police to lose 100 points.

Drug busts are events where police attempt to catch drug dealers, suppliers, and financiers in situations with enough evidence to convict them. In the style of arcade video games being examined, drug busts are usually depicted as chaotic events with villains, innocent bystanders, captives, and allies popping up like spring loaded targets at a shooting range in a setting with lots of places to hide. If you don't shoot a hostile target sufficiently quickly, you will be shot, so it is common to shoot the wrong targets. To add extra challenge, these games often deduct points — or worse, cause damage to the player character — if the player shoots the wrong target. This is often frustrating; not only does the player feel that they have failed to judge their target properly, but the wasted time can cause them to get shot by the real targets.

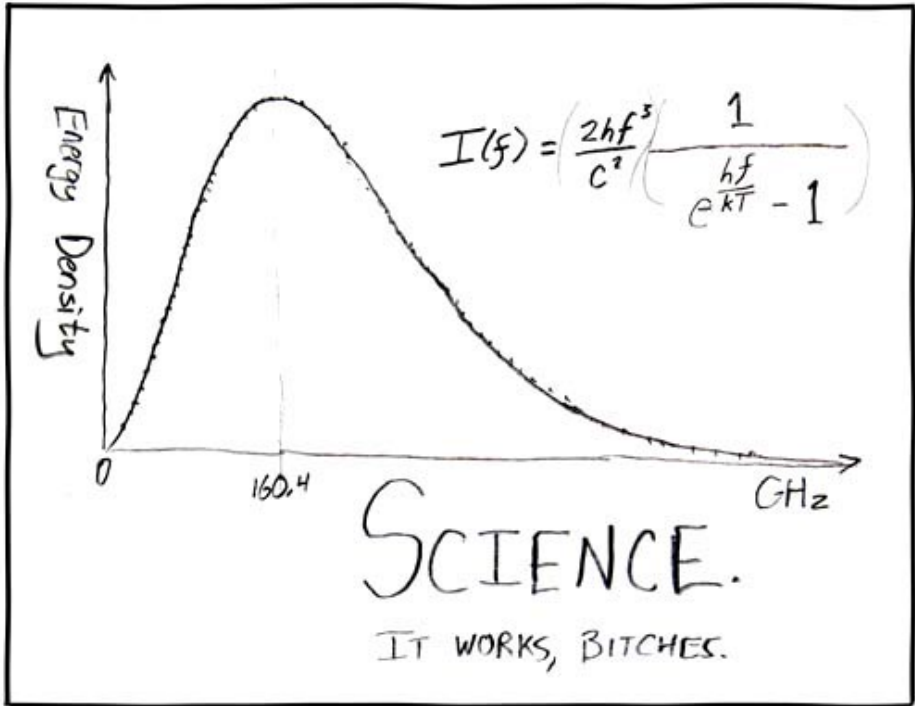
Obviously, doing this in real life would be a really bad idea, as the hobbyist would quickly be killed. Whether this can even be a hobby is questionable because hobbies typically refer to actions that one does repeatedly, but if one was killed the first time, one would not be able to

sneak into drug busts and startle police officers again. Also, if Randall actually did this, he would be dead and therefore unable to draw a comic about it.[citation needed] The title text of 188: Reload references this comic.

The title text is a reference to the game Area 51, which was a popular shooter arcade game from 1995 (although a console/PC game of the same name was released in 2005). Area 51 was one of many cabinet arcade games that featured a light gun that allowed players to aim at the screen and shoot in a realistic control mechanic. The title text confirms that the comic is referring to these light gun cabinet games specifically.

#54: Science

January 25, 2006



Bonus points if you can identify the science in question

Explanation

The solid line represents the theoretical radiation for a blackbody at 2.73 K according to Planck's Law (derived as early as 1900 by Max Planck). The formula, almost as written in the graph, can be found [here](#). The only changes are that on Wikipedia, the frequency f is represented by the Greek letter ν (nu) and the temperature T is included as an independent variable, so $I(f)$ becomes $I(\nu, T)$. However, $I(\nu, T)$ still represents the spectral radiance (similar to energy density). In this formula, h is the Planck constant, c is the speed of light in a vacuum, and k is the Boltzmann constant. The frequency (f or ν) along the x-axis is measured in gigahertz. The curve peaks at 160.4 GHz. There is no scale or unit on the energy density on the y-axis.

The theory is that the blackbody in question was the universe at the point when it had cooled down enough to allow photons to escape, 0.38 million years into its 13.8 billion years history. The photons that reach us today are the ones that have been travelling to us at lightspeed since then. As the light from astronomical objects suffers from redshift due to the expansion of the universe, and this shift becomes more pronounced with distance from the observer, this light displays in the infrared range.

The title text praises viewers who can identify where this equation and corresponding graph come from (without consulting this wiki, of course).

T-shirt explanation[edit]

This comic was made into a T-shirt but is no longer available. On the xkcd store, there was an explanation both for the title and for the graph in the comic:

#55: Useless

January 27, 2006

$$\sqrt{\heartsuit} = ?$$

$$\cos \heartsuit = ?$$

$$\frac{d}{dx} \heartsuit = ?$$

$$\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \heartsuit = ?$$

$$F\{\heartsuit\} = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} f(t) e^{it\heartsuit} dt = ?$$

My normal approach
is useless here.

Even the identity matrix doesn't work normally

Explanation

Randall is attempting to apply mathematics to the concept of love to no avail. Specifically, he is attempting his "normal approach", which is a term used in mathematics for the method one typically uses to solve a certain type of problem. However, as love is not a well-defined mathematical entity, his normal approach is useless. Simply put: he's saying he has found no way of describing love using only the tools of mathematics.

From the top, moving left to right, he tries the square root of love, the cosine of love, and the derivative of love with respect to x . He then attempts to left-multiply love by a 2×2 identity matrix, and finally he defines a function of love as a Fourier transform. These are all "normal approaches" to solving certain math problems. The message of the comic is that for someone who uses math to solve all their problems, defining love is impossible. It also indicates that love is not always a rational (or irrational) phenomenon.

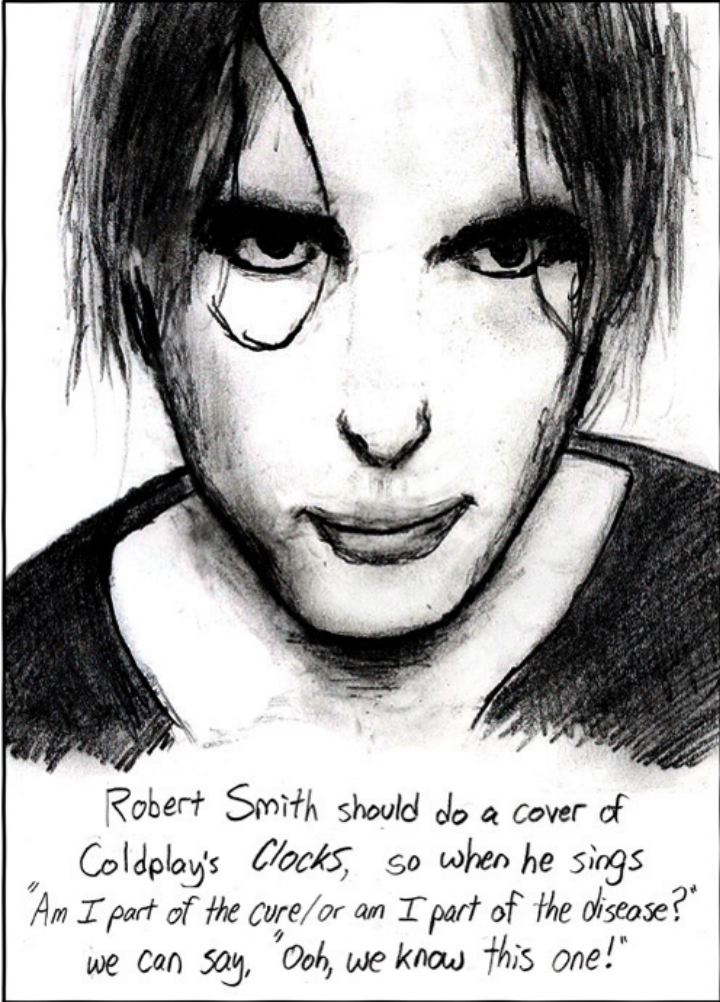
Basic explanations of the functions[edit]

- The square roots of x are the two numbers (positive and negative) where each multiplied by itself equals x . Often only the positive answer is quoted.
- Cosine is a trigonometric function that, when given the measure of an angle in a right triangle as an input, outputs the ratio of the lengths of two sides of that triangle (for cosine, it is the non-hypotenuse side adjacent to the angle and the hypotenuse).

- A derivative of a function is the rate of change of that function at a given value of x . It is a primary focus of calculus. A basic example is where "velocity" is the rate of change of displacement at a given time, the derivative of velocity is "acceleration", which is the rate of change of velocity at a given time.
- Identity matrices are matrices that consist of only zeros and ones, with zeros everywhere except along the main diagonal. Multiplying a matrix by the equal-sized identity matrix will result in the same output in the same way that multiplying a non-matrix by 1 does not change the original term. The title text suggests that multiplying love by the identity matrix does not return the same "love" value.
- A Fourier transform converts a function of time into a function of frequency. Therefore the original function is now represented as a "sum" of simpler periodic functions, that is sinusoidal waves. This is commonly used in math and science because these sinusoidal waves are easy to work with, for instance when solving certain partial differential equations like the heat equation. It is also used to study the relative amplitudes of the various sinusoids that form a signal, the spectrum of the signal, for instance when using a spectrum analyzer on an audio signal. Evidently the Fourier Transform of love is either not readily found or does not exist, which is unusual as even functions that are quite complicated or discontinuous can be represented in the Fourier domain.

#56: The Cure

January 30, 2006



My first try at drawing a real face in years

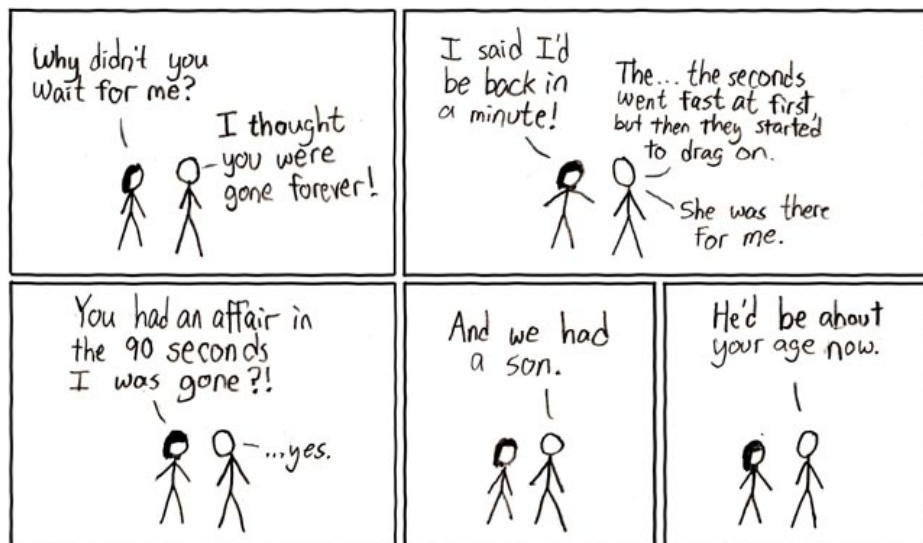
Explanation

The "real face" is that of Robert Smith, best known as the singer of the musical group The Cure, hence the title. When Robert would sing the above lines of Coldplay's song "Clocks", fans of his music would know the answer: he's part of The Cure.

In the title text, Randall notes that he has not tried to draw a real face in years, as he mainly draws stick figures. In that way this comic also sticks out (no pun intended).

#57: Wait For Me

January 31, 2006



Opening dialogue by Scott

Explanation

This comic juxtaposes a familiar exchange with a surreal outcome.

Megan is returning after a short absence. Cueball reacts as if she had been gone for years, and admits to having an affair while waiting.

In this comic, a familiar exchange occurs where one person asks the other why they did not wait. The humor lies in the improbability of him falling in love and having an affair within 90 seconds, the impossibility of him having a son in that time, and the ridiculous notion that the son would now be about Megan's current age. This is of course impossible, as it would imply that Cueball experienced twenty-ish years of life in what felt like 1.5 minutes for Megan. (He might conceivably have managed to have sex in that time span, which would fit with the experience of Cueball in 1068: Swiftkey).

Scott appears to be a friend of Randall. Comics 57 through 59 all have the title text Opening dialogue by Scott, forming a sort of informal mini-series inspired by him. They are:

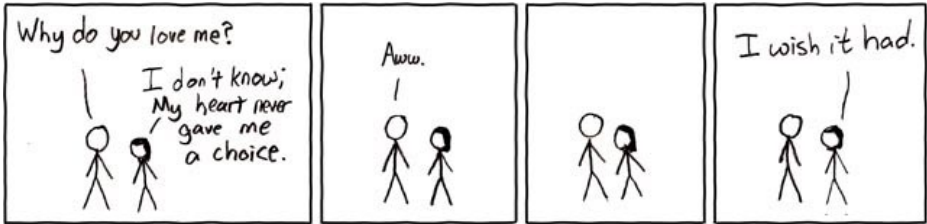
- 57: Wait For Me
- 58: Why Do You Love Me?
- 59: Graduation

As there already was a comic released on Monday that

week, the first of these three was released on Tuesday, then Wednesday and Friday. This may be related to the fact that this was the first week where the comics were not also released on LiveJournal.

#58: Why Do You Love Me?

February 01, 2006



Opening dialogue by Scott

Explanation

Cueball asks "Why do you love me?" to Megan, a fairly common question that couples ask each other. She responds by saying, "My heart never gave me a choice," a seemingly very sentimental, romantic answer. However, after a beat panel, she effectively kills the romance of the moment by adding, "I wish it had," indicating that she would rather not have loved Cueball.

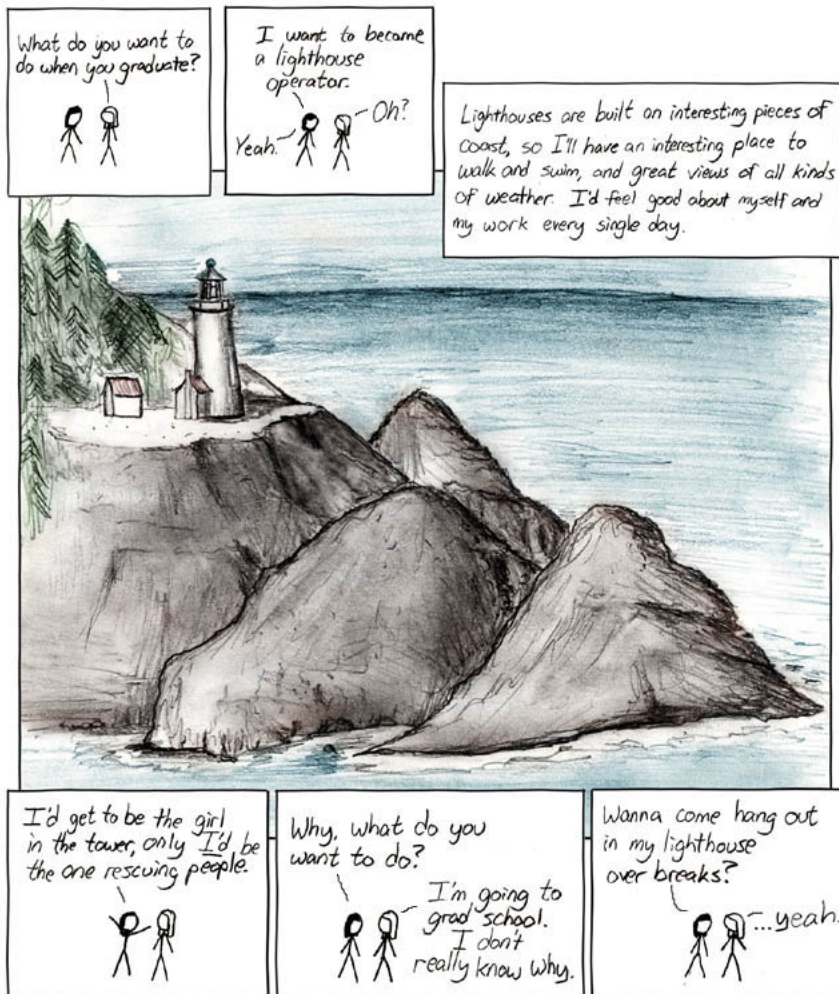
Scott appears to be a friend of Randall Munroe. Comics 57 through 59 all have the title text Opening dialogue by Scott, forming a sort of informal mini-series inspired by him. They are:

- 57: Wait For Me
- 58: Why Do You Love Me?
- 59: Graduation

As there already was a comic released on Monday that week, the first of these three was released on Tuesday, then Wednesday and Friday. This may be related to the fact that this was the first week where the comics were not also released on LiveJournal.

#59: Graduation

February 03, 2006



Opening dialogue by Scott

Explanation

Megan and Blondie (in her first appearance) discuss their plans for life after college. Megan has taken the increasingly unusual choice of pursuing a career as a lighthouse operator, a path that has become increasingly less traveled, as lighthouses have become ever more automated and supplanted by other solutions. Before GPS technology, lighthouses were invaluable markers of where dangers to marine navigation, such as shallow reefs or coastal headlands, were located. Megan likes the idea of subverting the trope of the helpless maid in the tower who needs saving, by helping to save seafarers by operating a lighthouse that helps them to find their way safely back home.

When it comes to her turn to answer her own question, Blondie answers that she plans to pursue postgraduate education, but admits that she has no purpose for doing so. After obtaining an undergraduate/bachelor's degree, graduate school is the next level of education, where students pursue a master's or doctoral degree. Augmenting one's education with post-graduate studies is a conventional career path, and would imply that the student has a definite plan for their career, yet some people may attend grad school only because it is conventional, without having any definite plan for their career. This appears to be the case for Blondie, contrasted with Megan's choice of a seemingly blue collar/unskilled career — one might expect such a career to indicate someone who has no specific career plan, yet Megan

seems to know her exact purpose, unlike Blondie. The fact that Blondie then accepts an invitation to spend her breaks at Megan's lighthouse suggests that she finds this a more attractive prospect than her more conventional path.

Other comics with a similar theme about finding or taking unexplored paths, instead of fitting into the mold, include 137: Dreams and 267: Choices: Part 4.

Scott appears to be a friend of Randall Munroe. Comics 57 through 59 all have the title text Opening dialogue by Scott, forming a sort of informal mini-series inspired by him. They are:

- 57: Wait For Me
- 58: Why Do You Love Me?
- 59: Graduation

As there already was a comic released on Monday that week, the first of these three was released on Tuesday, then Wednesday and Friday. This may be related to the fact that this was the first week where the comics were not also released on LiveJournal.

#60: Super Bowl

February 06, 2006

My hobby:



While everyone is watching the Super Bowl, feeling smugly superior because they're "only watching for the ads," I steal cars.

The Super Bowl is actually an elaborate ruse, concocted by a shadowy group in the mid sixties for this purpose. The 'watch it for the ads' addition was a master stroke.

Explanation

The third in the My Hobby series. The Super Bowl is the championship American football game of the National Football League, which is usually played each February, and the final game of the 2006 season, Super Bowl XL, was played on the evening of 2006-02-05, the day before this comic was released.

As the game is one of the most watched television broadcasts in North America, advertising during the game has become increasingly expensive (among the most expensive advertising rates of any broadcast) to the point where corporations produce their best, most expensive advertisements to air during the game, to ensure that they would get value out of the expensive spots. The Super Bowl has thus become notorious for the "best" commercials, with some viewers purportedly tuning in solely to see the commercials, rather than the actual football game. News reports the next day often highlight the best and worst Super Bowl commercials, as do websites devoted to Super Bowl commercials.

Realizing that the Super Bowl is viewed by a large percentage of the population, Randall, somewhat tongue-in-cheek, states that those people would be quite distracted during that time, and therefore it would be possible to steal cars without fear of being caught. The title text takes this even further, suggesting that the entire Super Bowl was invented entirely for the purpose of being a distraction for car thieves. Naturally, the addition

of the ads would make this even more effective, as it would attract even more viewers and ensure that they stayed in front of the TV during commercial breaks as well as the game.

The phrase "I steal cars" also provides a contrast to the fact that many viewers are only watching for the advertisements, making their smug sense of superiority seem petty compared to the fact that they but not Randall are not stealing cars and that they therefore are morally superior to Randall in this respect. This calls into question whether or not they really are significantly superior by comparing this marginal superiority to not being criminals. Alternatively, Randall may resent these people for feeling superior even though they aren't actually superior (at least in the eyes of Randall) and therefore steal their cars as punishment. Or Randall might be implying that they have no reason to being smug as they are being duped into having their cars stolen, and the thief is the one in the best position to be smug.

Randall may have chosen to use a car as a reference to the large number of car commercials that play during the Super Bowl, in addition to the ease of stealing a car at that time.

#61: Stacey's Dad

February 08, 2006

Look, I know you think that since I walked out she could use a guy like you. But trust me. That woman has got a lot going on, and you want none of it.



Get out
while you
still can.

Stacey's dad.

I bet she gets you to mow the lawn, doesn't she?

Explanation

This comic refers to the song "Stacy's Mom" by Fountains of Wayne (see the music video on YouTube). In the song, the background singers repeatedly say, "Stacy's mom has got it goin' on.". The song is from the perspective of a young teenage boy who has a crush on his best friend's mother — 'Stacy's Mom' — and has deluded himself into thinking that she might like him back. In one verse, he tells Stacy "I know that you think it's just a fantasy, but since your dad walked out your mom could use a guy like me," and this is the line the comic is referencing, with Stacy's dad (drawn the same way as Hairy, making this his first appearance) directly echoing the line and explaining why he left Stacy's mom, suggesting that the singer do the same.

The line "Stacy's mom has got it going on" is repeated throughout the song, and in context simply means that Stacy's mom is very attractive. Here, however, Stacy's dad changes it, saying that she "has a lot going on," which means that she has issues that would make a relationship difficult.

The humor comes from the fact that, in the song, it is very clear that the singer does not actually have a chance with Stacy's mom and is merely kidding himself, as he is still just a kid. But in the comic, Stacy's dad appears to be taking the situation completely seriously, and is worried enough about the possibility of Stacy's mom and the boy getting together that he feels the need to warn him away.

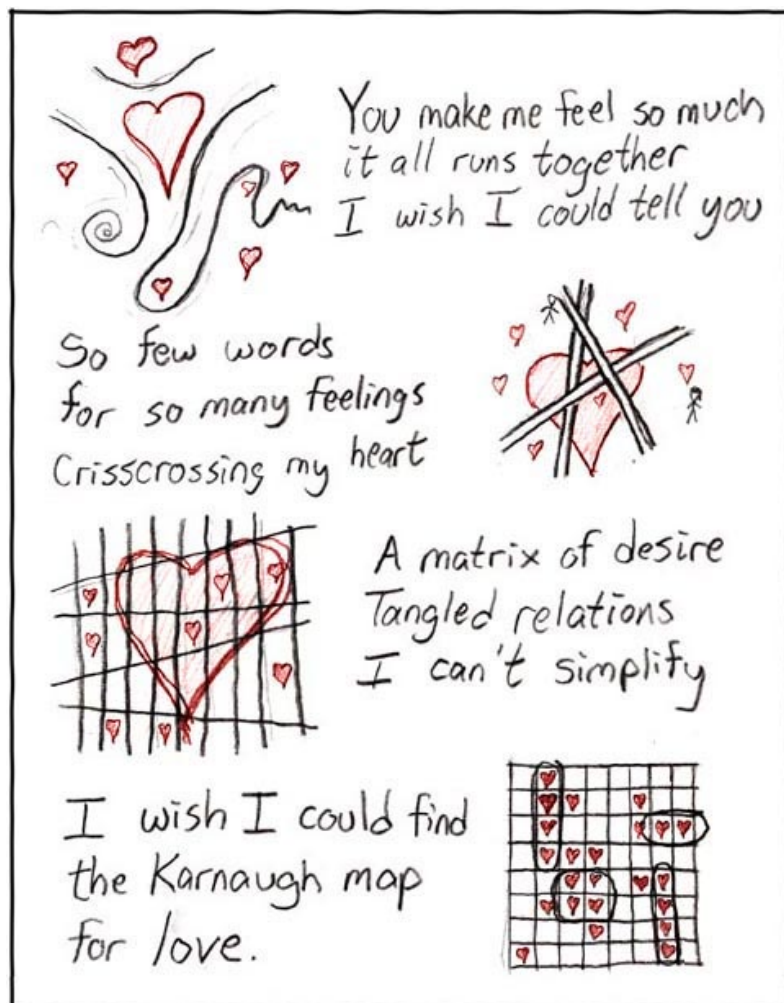
Additional humor comes from the different meanings of Stacy's mom having a lot "going on."

The title text is referencing the second verse, which begins: "Stacy remember when I mowed your lawn." Mowing the lawn is the sort of chore that a kid might get paid to do for a friend's parent, and in the song, this is meant to emphasize that Stacy's mom sees the singer as a child, not as a potential partner. But here, Stacy's dad seems to be implying that mowing the lawn is something that Stacy's mom made him — and possibly all her previous partners — do for her, and so her getting the boy to do it is actually a sign that she is interested in him.

The song Stacy's Mom was again referenced in 575: Tag Combination.

#62: Valentine - Karnaugh

February 10, 2006



Love and circuit analysis, hand in hand at last.

Explanation

A Karnaugh map is a Boolean algebra tool that is used to simplify expressions. The final picture, the one that looks like a crossword puzzle, is similar to the way that a Karnaugh map is used on a Boolean truth table, to identify areas that can be simplified. This PDF document shows how the process is used to simplify logic circuits. The lament of the Valentine is that feelings don't yield themselves to the same kind of analysis.

This comic has four pictures with lines of text alongside them. The text can be used to understand the picture. The first three pictures show love to become more coherent and well-defined but yet complicated. The last picture and text alongside it show Cueball's desire that there should be a way to simplify complications in love, just like Karnaugh maps for Boolean expressions.

The first line means that love is such an overwhelming feeling that it is hard to understand it and even harder to explain. The picture alongside has incoherent lines depicting the feelings of someone in love and hearts represents the overwhelming love.

The second picture and related text mean that the feelings are now identified to some extent but are numerous, and there are too few words to explain them. The picture depicts Cueball and Megan on separate side of his heart crisscrossed by many feelings. It shows that his inability to explain his feelings is like a barrier

between them.

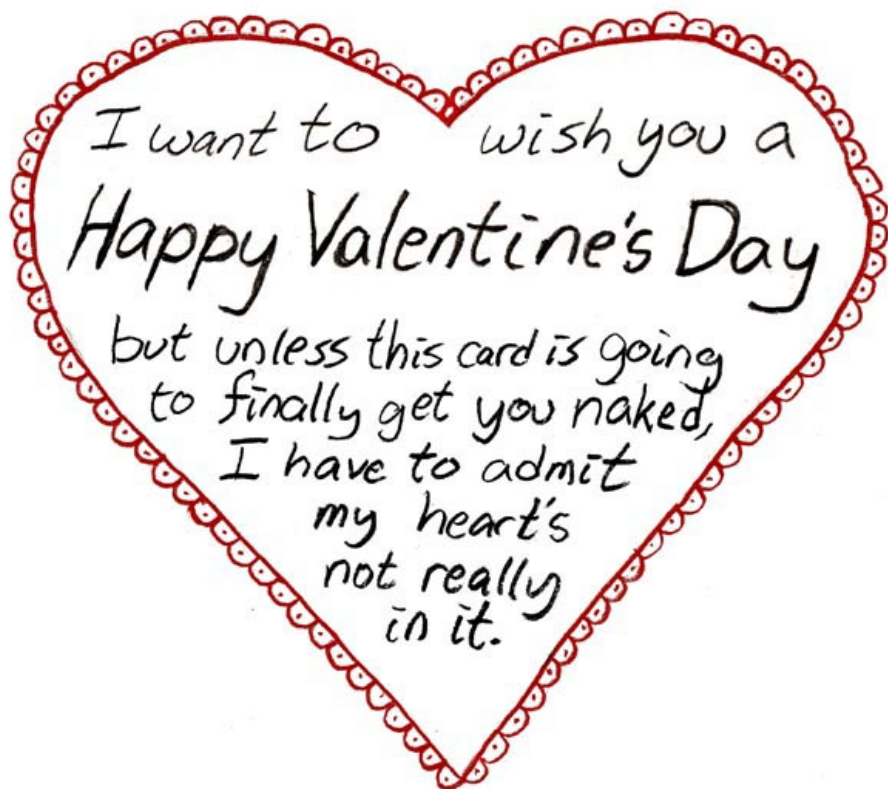
The third picture shows that Cueball has a much better understanding of love and now sees it as a matrix of desires and tangled relations, but it is still very complex to fully understand love.

The fourth picture shows a Karnaugh map that Cueball wishes he could find in the future to solve the matrix of desires and tangled relations that is love.

The phrase in the title text, "Love and circuit analysis, hand in hand at last" is likely a play on the more common phrase "love and marriage, hand in hand." It appears that Cueball has finally reconciled and understood his feelings of love via circuit analysis, and could be interpreted as a comment from Randall about how this comic has brought together love and circuit analysis together as such.

#63: Valentine - Heart

February 13, 2006



Just pretend you're kidding.

Explanation

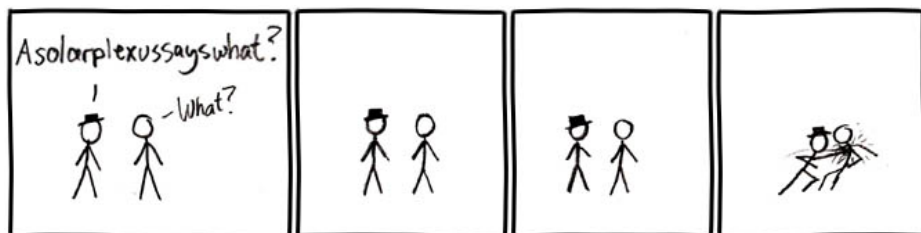
The comic shows a Valentines card that starts off nicely, but then escalates quickly, becoming very unromantic although probably very honest, that the only purpose of this card is getting the receiver into bed. It says that if this is not the case, if she (or he) doesn't want to go naked after receiving this card, then it is not really meant (i.e. their heart is not in it).

The title text implies that this is being offered as a Valentine that someone might give and then "pretend" that they were kidding. Which seems to imply that they would not, in fact, be kidding, that this represents their real feelings.

A funny thing is also that the text on the card implies that if the card indeed does get the receiver naked, that the action of giving it was truly meant. In that case, the giver would always deny that it was not meant and claim they are truly in love. Of course this cannot be true, since getting laid was the main motivation of appreciating the 'loved' one. "In it" could be an intentional sexual innuendo.

#64: Solar Plexus

February 15, 2006



It hurts to be hit there, you know

Explanation

The solar plexus is a network of interconnecting nerves that is centered in the area of the abdomen near the stomach. A blow to this area is painful and the cause of the feeling called "getting the wind knocked out of you" and is prevalent in media.

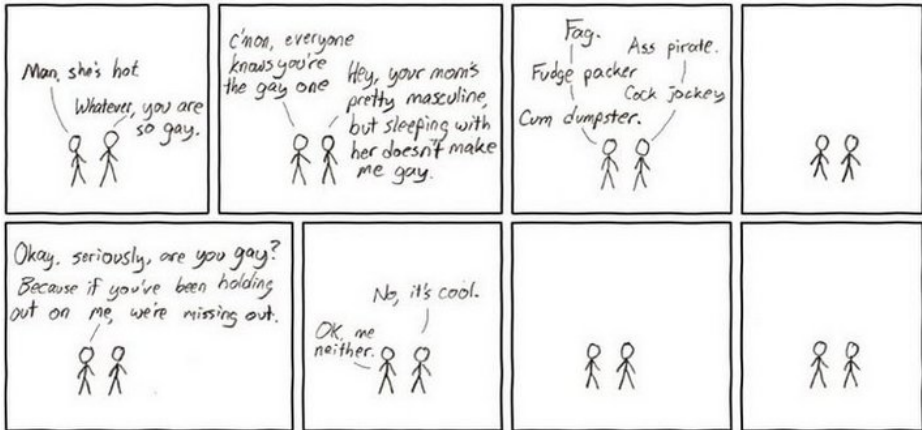
The trick "A sphincter says what" is a juvenile taunt that tricks a person into calling themselves a sphincter when they respond, "what?"

Black Hat resolves the solar plexus joke with a punch to Cueball in the solar plexus as opposed to a normal punch(line).

The title text mentions truthfully that it hurts to be hit there.

#65: Banter

February 17, 2006



This was an actual mock conversation between me and a friend at TGIF. The waitress walked up around panel 5 and was somewhat put off.

Explanation

Two guys are trash-talking each other with homophobic comments and "your mom" jokes. It goes somewhat astray and becomes awkward when the first guy makes a pass at the second guy and is rejected. Part of the element of the humor in this comic stems from a common assertion that the most homophobic of men are the most likely to be a closeted homosexual. Another element is the incredible awkwardness of the end conversation, with both characters standing awkwardly for the last 2 panels.

Fag, ass pirate, fudge packer, and cock jockey are all insults for a homosexual man, while cum dumpster can apply to both men and women. These terms were not generally considered more than mildly offensive by most of the public at the time this comic was posted. The cultural mainstream is now typically much more critical of this type of language, and this comic would likely be heavily criticized if it were published today.

In the title text, he says he mock-held this conversation with a friend in a TGIF restaurant, indicating how awkward this would be in real life. Even the waitress, a bystander, is put off by it.

#66: Abusive Astronomy

February 20, 2006



Medium: Pencil on paper

Explanation

An asterism is a pattern of stars that forms some sort of perceived shape in the night sky. Some of these are patterns used to name regions of the sky, as constellations. Modern astronomy organizes the sky into 88 constellations, but different cultures saw different patterns in the same night sky, going back at least as far as the Babylonians, and there are many other patterns and grouping of stars. The Pleiades (or Subaru), Orion's belt, and the Big Dipper are among the most common asterisms that we recognize today and are among the first taught to people with an interest in astronomy. The Pleiades is an open star cluster in the constellation of Taurus. It is a group of stars that formed from the same nebula and are moving together. Orion's belt comprises three stars that appear close in the sky, but are in fact at great distance from each other. The Big Dipper is part of the constellation Ursa Major. It can be used to help find the north pole star Polaris, which is an aid to night-time navigation.

During planetarium tours, the tour guide will point out popular constellations and stars; sometimes they will ask a question to get the audience involved in the presentation. Usually these people are big on showing the wonder of the galaxy and are all smiles, but people have bad days. The comic is presenting an especially aggressive way of introducing the night sky.

When astronomers in the Northern Hemisphere are

showing stars to people, there will frequently be someone who points to the Pleiades and says, "There's the Big Dipper!" (both appear as a trapezium of stars, with a handle, though the Pleiades is much smaller). This gets frustrating about the 100th time that you encounter this error. So, this comic could show someone releasing their frustration on the misinformed public by pointing out that what they just pointed at is actually the Pleiades, then, pointing out that you can always locate the Pleiades by following the line of the stars in the belt of Orion, then, pointing out the REAL Big Dipper.

In the title text, Randall explains that he drew this comic as a line drawing on white paper, using only a pencil. The image was later inverted for publication.

#67: Nerd Girls

February 22, 2006



Nothing personal, high schoolers.

Explanation

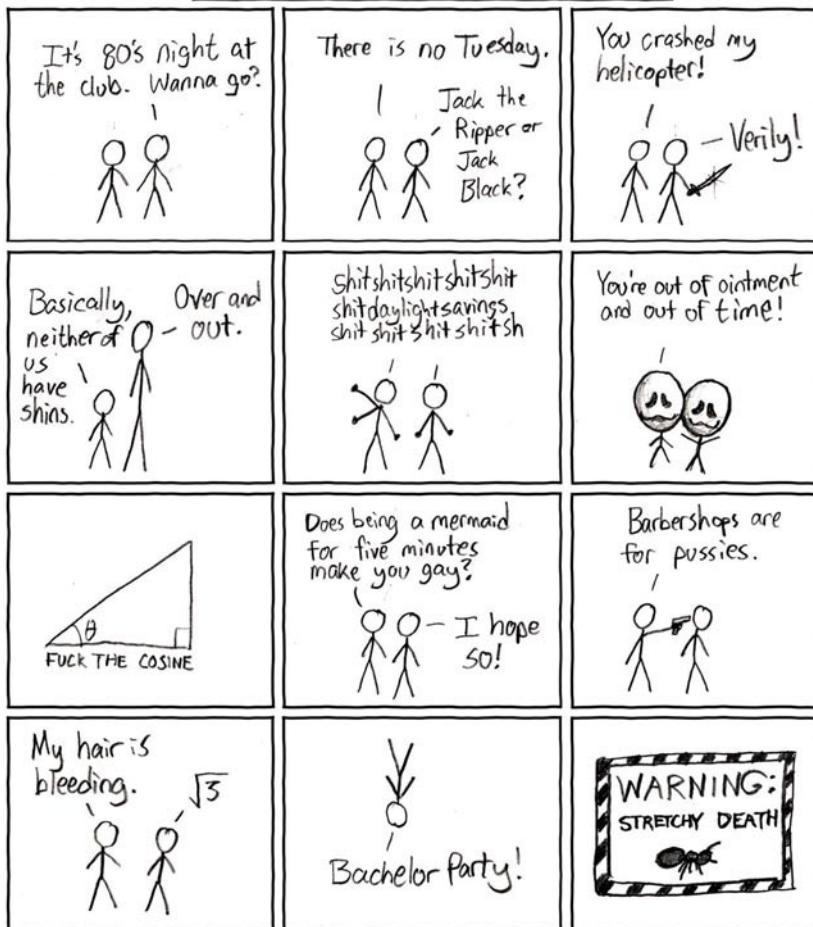
The stereotypical nerd is socially inept and has an obsession with a non-mainstream hobby such as Dungeons and Dragons. Nerd males are also typically represented as treating all women (including female nerds) with reverence and awkward fawning due to their supposed inexperience and lack of female company in comparison to other males. In the comic, the nerd girl uses this as an excuse for her social ineptitude.

The T-shirt the girl is wearing contains the text "Do not meddle in the affairs of Dragons," which is an actual text used for T-shirts, continuing with "for you are crunchy and taste good with ketchup!" This text is a modified version of a quote from Tolkien's *The Fellowship of the Ring*: "Do not meddle in the affairs of Wizards, for they are subtle and quick to anger."

#68: Five Thirty

February 24, 2006

Comics from 5:30 AM



The 8th panel is my favorite

Explanation

At 5:30 AM, one's sleep-deprived or prematurely-roused mind sometimes comes up with things that seem like nonsense later.

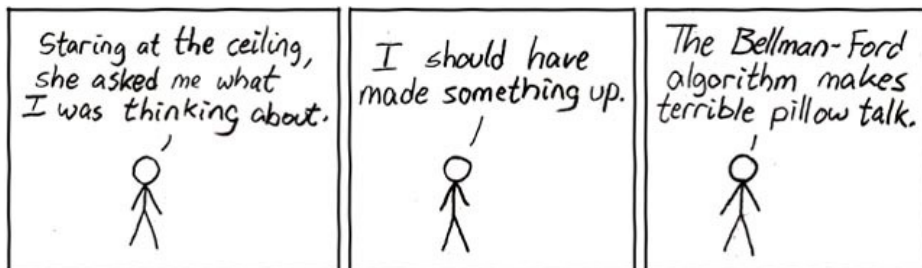
None of the twelve panels in this comic seem to have any correlation with one another, each one being its own "story," and none of them really make any sense. It is unknown whether Randall really wrote this comic while awake at 5:30 in the morning, or if he wrote it while completely alert and is trying to pass off his rejected ideas by saying what one's mind may experience when trying to process information at an hour when the person is not used to being awake.

Explanations of the individual panels (numbered left to right, top to bottom)[edit]

The title text could actually refer to two different panels. If a person chooses to read the comic left-to-right, top-to-bottom (which is more likely given that this is the order in the official transcript), the eighth panel could be the one with where Cueball asks "Does being a mermaid for five minutes make you gay?" However, if a person chooses to read the comic top-to-bottom, left-to-right, the eighth panel will instead be the one with Cueball hanging upside down shouting "Bachelor party!"

#69: Pillow Talk

February 27, 2006



Maybe I should've tried Wexler?

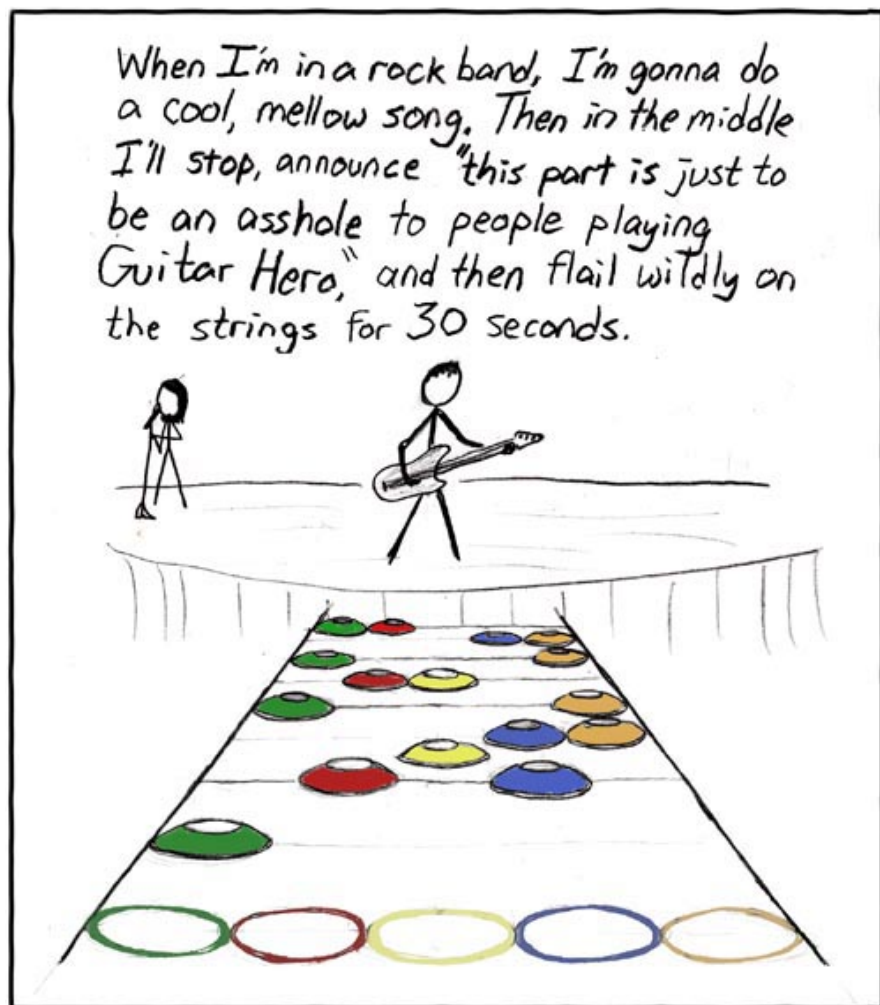
Explanation

The Bellman-Ford algorithm is an algorithm that calculates the shortest path(s) through a weighted digraph or collection of connected nodes or vertices. The "Wexler" in the title text refers to Wexler's algorithm, which is used to deal with the inverse problem of electrical impedance tomography, or simply stated: the electrical conductivity of an (inhomogenous) object.

Both of these would make terrible pillow talk. Pillow talk is the conversation made by lovers after they have had sex, and is usually relaxed and intimate instead of technical.

#70: Guitar Hero

March 01, 2006



And then do it again in a moment now that they're out of Star Power

Explanation

Guitar Hero is a series of video games (originally a single game) distributed by Activision. In the game, players simulate playing the guitar on famous guitar songs using a plastic guitar-shaped controller with five color-coded buttons on the neck representing guitar frets and a rocker bar on the body simulating a strumming motion. The game now includes other instruments such as drums and vocals, although not at the time this comic was published.

While the player plays the game, an animated band is shown on the upper half of the screen, and an extended guitar neck is shown vertically on the bottom half of the screen with horizontal frets, often called the "note highway." As the song progresses, coloured markers or "gems" indicating notes travel down the screen in time with the music; the note colours and positions match the five fret keys on the guitar controller. Once the notes reach the bottom, the player must play the indicated notes by holding down the correct fret buttons and hitting the strumming bar in order to score points. The image in the comic is similar to what is shown when playing Guitar Hero.

In this comic, Randall suggests that, were he in a real rock band, he would perform a mellow song, but intentionally put a complicated guitar solo in, not for musical value, but solely to antagonize Guitar Hero players with an impossible solo. As the comic suggests, a

random flailing would likely make for a very difficult passage to play in Guitar Hero. This is highlighted by the previous statement that the song would otherwise be mellow, lulling the player into a false sense that the song was easy to play and relaxing. Even worse for Guitar Hero players, if there was anyone who is good enough to play the solo, they would still have no fun playing the song if it is otherwise very mellow.

Probably, the "impossible solo" proposed here would turn useless, as there are some songs where the artist actually flails the guitar, and the developers translated that in gameplay as a bonus where the players can freely spam their controller/guitar for extra points, similar to the spinner circle in osu!.

The title text refers to a mechanic in Guitar Hero called "Star Power." Normally, when a player misses too many notes in a short time, their character is booed off the stage, and they have to restart. Using Star Power temporarily boosts the score from each note, so the player can clear a difficult section of the song even if they haven't hit most of the notes. So, when faced with Randall's impossible guitar solo, most players will immediately use Star Power to survive it. However, it takes time to build up Star Power, and it all gets expended at once, so if the song has a second stretch of wild flailing, the player won't be able to escape and will fail. (Also note that in Guitar Hero III: Legends of Rock and many other titles of the series, a full meter of Star Power lasts for eight measures, so as long as the song is mildly fast (80BPM would more than suffice for a 4/4 or

12/8 time signature), 30 seconds would be enough already.)

#71: In the Trees

March 03, 2006



It was tricky.

Explanation

This comic focuses on dark humor. In the first panel, the viewer is led to believe that it is a comic lamenting on the loss of love, as it states, "We made it so far together, but then I lost you in the trees." However, when we read the second panel ("Finally"), it becomes clear that the joke is that the loss of this "love" is what he had been hoping for all along. The supposed pain that came from such losing a long relationship came not from lamenting the loss of something he put so much effort into, but instead into the fact that it took so long to get there. The title text just furthers this idea.

The expression could at first be interpreted as metaphorical, but from the later panels and the background, it may be a literal loss in a forest.

There is a similar twist in comics 334: Wasteland and 1042: Never.

#72: Classhole

March 06, 2006



A term coined by my friend Beth

Explanation

The subject of this comic is Black Hat himself. He admits to being an asshole, a profanity that describes someone who does things that antagonize, irritate, or anger others (either intentionally or incidentally). While a common example might be someone who weaves in and out of traffic, or someone who parks across two parking spaces, Black Hat is "more creative." This also suggests that, while most people described as assholes are either ignorant or selfish, Black Hat seems to intentionally behave this way strictly to be an asshole and not for any self-benefit. He claims to be a "classy asshole," or as he coins the portmanteau, a "class-hole." He seems to equate creativity with class, although that seems like a leap. In any event, this is another early Black Hat strip that, for the first time, explicitly sets out that he goes out of his way to wreak havoc.

Among his "pranks," he suggests poking holes in grocery noodle cups. These are pre-packaged cups filled with dried noodles and dried soup mix (either in a separate pouch, or loose in the cup) to which one adds boiling water, which both cooks the pasta and dissolves the soup mix to become the soup/broth. By poking holes in the cup, Black Hat ensures that someone pouring boiling water in the cup would have it leak all over them, causing them great surprise and pain.[citation needed]

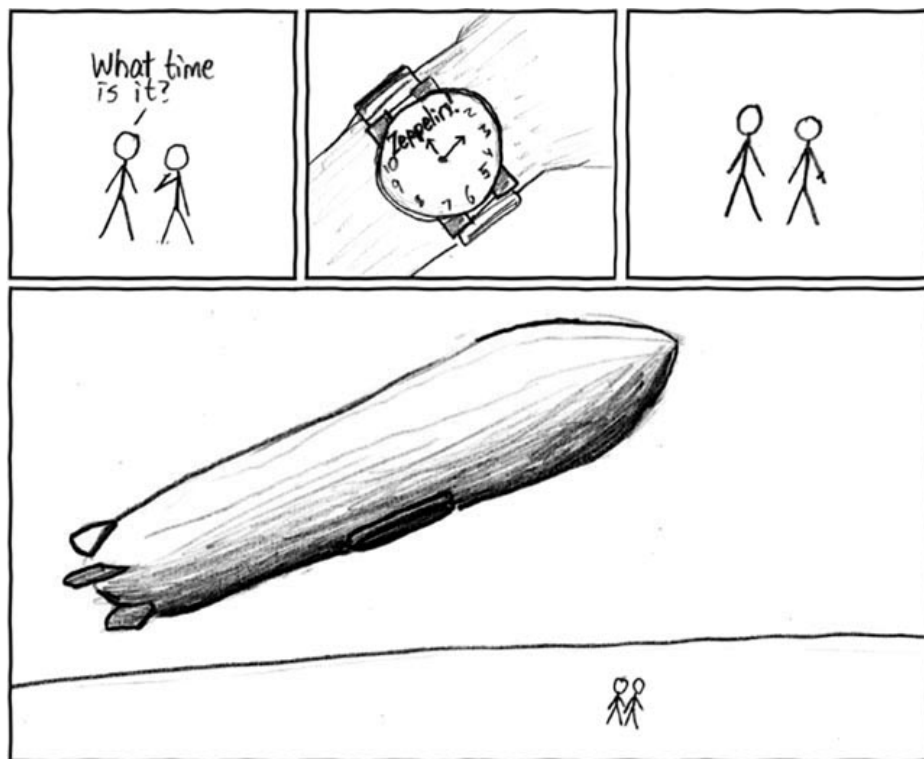
He also suggests poking holes in condoms, which could cause even more serious consequences. This form of

contraceptive sabotage is a way to cause unintended pregnancy or sexually transmitted disease infection. Sabotage may be by someone acting maliciously at random (such as poking holes at the store pre-purchase) or by one of the participants to attempt to cause a pregnancy when the other partner does not want it, often occurring as part of reproductive abuse. The 2013 movie *The Priest's Children* describes a similar campaign.

The title text explains that the word 'classhole' was first introduced to Randall (and probably to the world) by a friend of his named Beth. The term was later prominently used in the *Family Guy* episode *Brian Griffin's House of Payne*, but since that episode first aired in 2010, this comic (and by extension Beth, presumably) used it before that. Whether the writers of *Family Guy* derived the word from this comic, heard of it from some other source, or thought of it independently is unknown.

#73: Zeppelin

March 08, 2006



A tribute to Buttercup Festival

Explanation

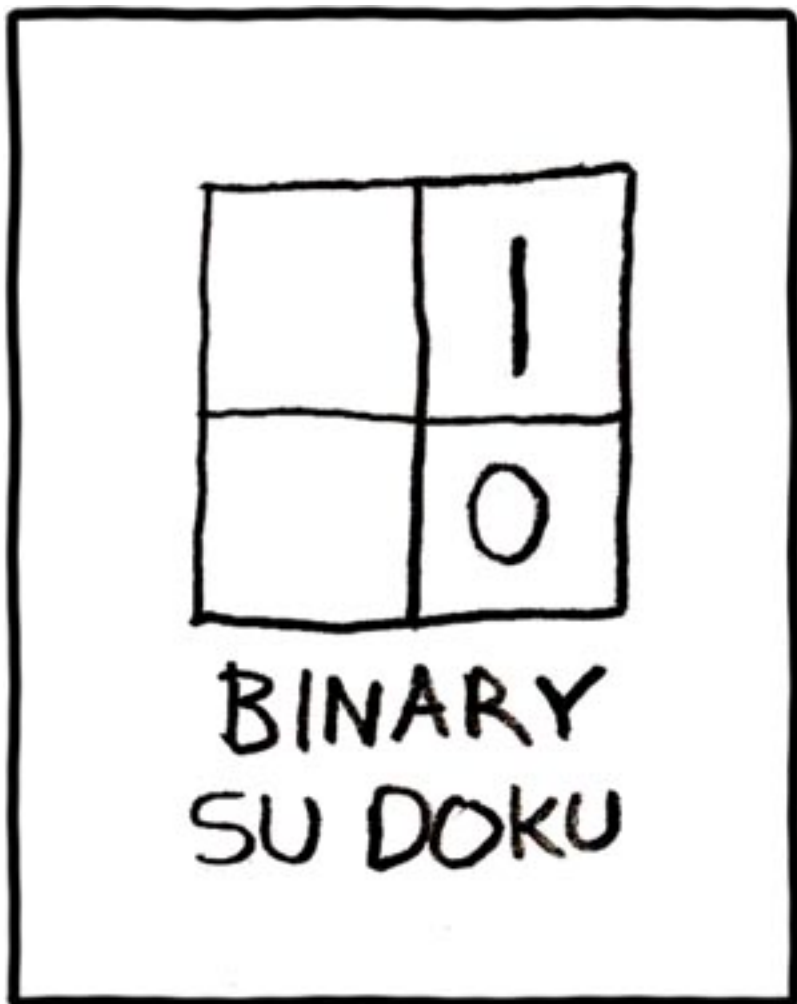
A zeppelin is a type of rigid dirigible aircraft, used in the early part of the 20th century for commercial airline traffic. They were well known for being the most luxurious, comfortable air travel of the time. The Hindenburg disaster, as well as World War II, led to the end of their use as commercial airliners. Also associated with the Zeppelin name is a particular design of wristwatches, notable for having the word "ZEPPELIN" (with no exclamation point) at the top of the dial, at or under where the number 12 would be. In this comic, Randall implies that, since the hour hand of the watch is pointing to the word "ZEPPELIN!," it is time for a zeppelin to appear in the sky.

The joke was continued in 288: Elevator, in which replacing a numeral with "ZEPPELIN!" also invoked the appearance of a lighter-than-air airship.

The title text refers to the webcomic Buttercup Festival, which, at the time of this comic, was defunct. It was later revived by the author then defuncted again in 2015 and revived, again, in 2019. As of 31 March, 2025, the comic is running its third series. It is a tribute to Buttercup festival in the way it interprets things in the world naïvely and literally to achieve humor, in a simple yet effective and uncontrived way.

#74: Su Doku

March 10, 2006



This one is from the Red Belt collection, of 'medium' difficulty.

Explanation

Su Doku (Japanese for "single number," and now usually written as "sudoku") is a type of number puzzle, in which the player must place digits in a matrix field in the correct arrangement, such that they do not repeat within given domains. The most common arrangement is a 9×9 grid subdivided into nine 3×3 grids, into which the nine non-zero digits of the normal decimal counting system must be inserted, with no digit being allowed to appear twice in a horizontal or vertical row or in each individual 3×3 grid. The number and combination of pre-filled squares determines the difficulty of the puzzle.

However, Randall presents a 2×2 binary sudoku puzzle which isn't subdivided. The joke is that the binary system has only two digits (0 and 1), and as a result binary sudoku puzzles would be trivially easy and thus pointless. The puzzle in the comic would be completed by filling 0 in the top-left and 1 in the bottom-left empty box. The only other possible grid would have the 0s and 1s swapped. This fulfills the criterion of having no repeated digits in any row, column or cell.


The title text appears to reference a series of published sudoku puzzle books called "Martial Arts Sudoku". The difficulty of each book is denoted by a martial arts belt color, with each color representing a certain skill level. A red belt is a rather high level, second only to the black belt. When applied to binary sudokus, a sudoku with one number given would be the most difficult one (though

still trivial) and thus be a black belt. This sudoku has two numbers given, hence the medium red belt level.

#75: Curse Levels

March 13, 2006

My hobby:
mixing curse levels

 — What a
gosh-darned
cunt.

I find so much fun in language.

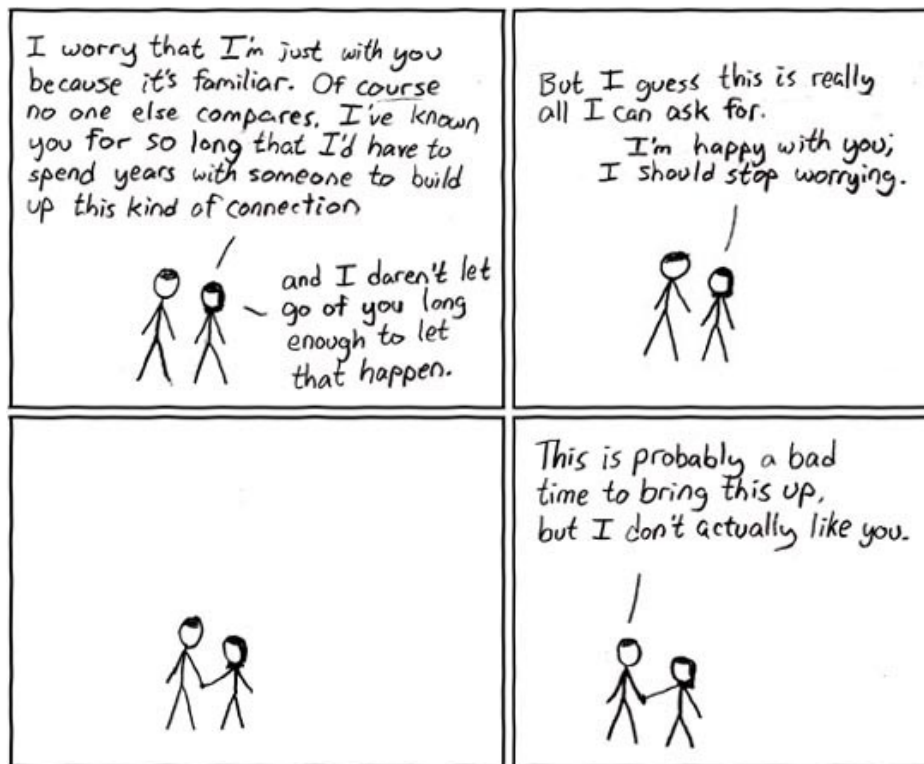
Explanation

This is the fourth comic in the My Hobby series. Curse words (aka: swear words/profanities) are disrespectful words that are typically impolite to use in public. As noted in the strip, there are "levels" of curse words ranging from those "mild" words that are more acceptable to use, to those "severe" words that are considered very impolite (the milder curse words can be used on network television in the US, for example, while severe ones can not). One usually uses milder cursing because either they personally don't feel comfortable using the more severe words, or because it would not be appropriate in the context (such as on network television, in the presence of children, etc). Thus, mixing mild and severe curses in one usage does not usually occur, as the effect achieved by keeping the one curse word mild is negated by using another that is severe.

In a mild curse, "gosh-darned" is typically used as a minced oath of "God-damned" when the latter would be inappropriate. This is mixed with "cunt" — a vulgar term for the female genitalia, considered the most offensive swear word in many English-speaking countries.

#76: Familiar

March 15, 2006



:(

Explanation

Megan tells her boyfriend (Hairy) her reservations about their relationship: she's happy with him, she thinks he doesn't compare to anyone else, and they have a strong connection built up over the course of years, but she's worried that all this is just because they've been dating so long that she hasn't had the opportunity to experience potentially better relationships. However, she recognizes that what she has should be enough, and resolves to stop worrying. Hairy responds to this by saying that he doesn't even like her, recognizing that it's relatively poor timing to say so after her expression of love (albeit a rather ambivalent one).

The title text is a sad-face emoticon, representing either Megan's sadness about his dislike of her, his (possibly disingenuous) sympathy for her, or the narrator's recognition that he's depicted a sad situation.

#77: Bored with the Internet

March 17, 2006



I used to do this all the time.

Explanation

A character who has hair (not to be confused with Hairy) suggests to Black Hat that he is wasting his life on the Internet, and they should go explore the world. They appear to walk a great distance, through what appears to be a swamp or perhaps a forest in winter, across a plain, and down to a river valley. Despite traveling so far and through such varied landscapes, in the last panel, the character with hair admits that all he can think about is what a great LiveJournal post their trip would make. It appears that the plan to get the Internet off their mind has failed.

LiveJournal is a website on which users can make accounts and, effectively, blog, although the site is designed around the premise that the blogs ought to be used as personal journals, with the ability to privatize the journal or only let certain friends see certain entries. LiveJournal was an early social network and an early blog platform and was a good way for people to let others know what was going on in their lives. Randall presented his comics on LiveJournal before using xkcd.com. Today, LiveJournal still exists, but its popularity has plummeted.

The title text suggests that Randall has overcome a tendency to think about how he will document what he has been doing, rather than concentrate on the thing itself.

From xkcd: volume 0:

#78: Garfield

March 20, 2006



The use of the 'Garfield' character for the purposes of this parody qualifies as fair use under the Copyright Act of 1976, 17 U.S.C. sec. 107. See *Campbell v. Acuff-Rose Music* (92-1292), 510 U.S. 569

Explanation

The newspaper comic strip Garfield, which features an orange cat as the main character, has increasingly been known for repetitive, quality-lacking strips. In the past, this was because the creator, Jim Davis, prefers to explore the same subjects he is comfortable with but in different ways — or from a less charitable view, because the strip is intended for a wide audience and thus becomes homogenized and inoffensive by nature. This attitude has only become more pronounced in the 21st century, as the aging Davis becomes less and less interested in the franchise. Regardless of the reason, these strips are now ghost written with little input from Davis and rarely explore the unconventional. The comic is challenging Davis to do something unexpected and surprise us all. The comic also accuses Davis of being a "sellout", sticking to bourgeois/commercial logic, something that Dadaist artists challenged. The comic number (78) corresponds to the year Garfield debuted (1978).

Dadaism was an artistic movement in the early 20th century marked primarily by chaos, irrationality, and surrealism. Some of the artists believed that the bourgeois logic made human beings unhappy and therefore led to war. Randall leads by example by featuring a strip that parodies the style of Garfield, with multiple colors (xkcd usually contains only black and white, with some few containing an additional color like red or yellow) and a character that is not a stick figure breaking the normal xkcd pattern. Another Dadaist aspect is the fact that

while Garfield is smiling, he is communicating something that could be considered terrifying.

The title text explains that xkcd is exercising legal use of Davis's intellectual property, namely the title character of his comic. The Supreme Court case mentioned, *Campbell v. Acuff-Rose Music*, confirmed that parody is legal even when there is commercial gain as a result, and also referenced the Copyright Act of 1976, 17 U.S.C. § 107, for the same reason. While this is normally understood by most anyone who questions such matters, Randall includes it as a reference to the lessening of strict copyright law, which many comics also mention, usually in the context of free software and those who promote it, like in the comics featuring Richard Stallman.

#79: Iambic Pentameter

March 22, 2006

What time can you
pick Michael up?

| Well, I can meet the
plane at ten of six.

Do you know where
to find him?

| I'll meet him at the
stairs before the gate.



My hobby: answering casual
questions in iambic pentameter.

Of course, you don't wanna limit yourself to the strict forms of the meter. That could get pretty difficult.

Explanation

In this part of the My Hobby series, the hobby is responding to casual questions using iambic pentameter. Iambic pentameter is a form of poetic verse defined by the number of syllables per line. In this form, a line contains exactly five (penta means five in Greek) "iamb" per line. An iamb is a unit of two syllables with the stress falling on the second. The actual breakup of the words is unimportant; the definition is based solely on the pattern of stressed and unstressed syllables. One line of strict iambic pentameter will have ten syllables, with the stress falling on the second, fourth, sixth, eighth, and last.

In this comic, Cueball (i.e. Randall - the one with the hobby) is replying to his friend's questions. (The friend also looks like Cueball, but are here differentiated by who has the hobby.) Cueball's responses are each one line of iambic pentameter, just visually broken into two lines for space reasons. They read (adding the emphasis):

with a sort of bouncing rhythm.

Shakespeare was one of the most famed users of iambic pentameter in his plays. This is the "strict form" of iambic pentameter. In practice, poets often strayed from the strict count of iambs as the image text suggests. Wikipedia offers two Shakespearian examples being "Now is the winter of our discontent," in which the first iamb is reversed ("Now" is stressed rather than "is"), and "To be or not to be, that is the question," which adds an

extra unstressed syllable at the end. As the comic suggests in the title text, without such exceptions, it can be very difficult to stick to strict iambic pentameter for every sentence.

#80: My Other Car

March 24, 2006



It's much better than the other one.

Explanation

This comic refers to a popular form of bumper sticker that follows the template "my other car is a ____." Sometimes the blank is a fancy vehicle like a Porsche or a Ferrari; sometimes it's related to the person's job (e.g. "My other car is a fire truck"); sometimes it's an even more expensive form of transportation like a "yacht" or "private jet," or even something joking or in fiction (like a "TARDIS").

The premise was to jokingly imply that someone driving in a less fancy vehicle was wealthier than they looked, as they could afford a fancy car (they simply chose to drive the clunker that day). The designer of the first stickers might even have intended them for serious use by wealthy drivers. The form of sticker ultimately became so well known that the phrase entered the pop-culture lexicon.

Due to their popularity, these stickers also have been parodied in various ways, like the one Randall has invented here. Randall's sticker is a more "honest" sticker that admits "this IS my other car;" in other words, this is the nicer of the two cars.

This sticker could probably be used on an expensive car to mirror the traditional sticker's use on a cheaper car. However, the car in the strip is a Mitsubishi, which is not a particularly expensive brand, though the presence of a spoiler indicates it may be one of the top-range models,

or at least has had a little extra paid for some sports 'extras'. Thus it appears that Randall is using the sticker for contrasting purposes: while others would drive a modest car but joke that they have a really nice one at home, Randall's car is the one you see, and, as he noted in the title text, his other one is much worse than this one.

It's also possible that this is a play on meta-levels; by definition, the car that you're driving can't be your other car, as it's your car you're driving now. Your other car is the one sitting at home.

#81: Attention, shopper

March 27, 2006



There's a red convertible outside my building with the license plate 'DADS MNY'.

Explanation

A common trope (often referenced in TV and film) is a loudspeaker announcement in which a store employee (or anyone else in charge somewhere where people gather, like church or a school) announces that a certain color and model of car has its lights on, or is blocking another car, or is about to be towed, or similar. A license plate is sometimes included to allow the owner to identify that it is specifically their car that is involved.

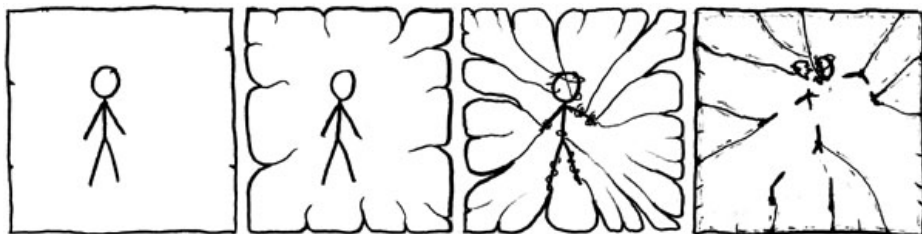
In this case, Black Hat is up to his old ways as, in addition to announcing that an SRT-10 has its lights on, he also announces that it has had its windshield smashed with a golf club. Black Hat is, of course, holding a golf club, frustrated at the owner's revolting arrogance. The lights are probably on because the attack triggered the car's alarm system.

The Dodge Viper SRT-10 was a version of the Dodge Viper available on the third and fourth generations of Viper from 2003-2010. It was a very expensive sports car.

The two license plates in the comic are personalized license plates. The one in the comic-proper is clearly "My Toy"; the plate in the title text is most likely "Dad's Money," which Randall suggests is a real plate on a car outside his building, suggesting that the driver's father paid for the car, bragging about how rich their family is.

#82: Frame

March 29, 2006



...

Explanation

Cueball is standing in the middle of the first square panel, but then the panel's frame starts warping away from being square and starts to form into tendrils that move toward him, then slowly wrap themselves around him, and finally retract, reforming the frame again, but pulling him apart in the process, in a rather macabre comic.

Typically, the frame on a cartoon is used to separate different periods of the action. Here, this has been subverted by the frame becoming a character, the main protagonist, and sole survivor of the strip.

There is some indication that Cueball is also just part of a drawing, since his upper torso, with parts of each arm, is left hanging in the air without any tendrils touching it. If it was not stuck in the center of the image, it would fall down, but more importantly, even if all tendrils pulled very fast at the same time, it is highly unlikely that they could pull so precisely that the body would split in four pieces around this remaining body cross, and one of the tendrils should have pulled this part along with either an arm, the head, or the lower torso. This could be some comfort for those who think that this is too much. Of course, it could also just be something that Randall did not think was important in such a surreal comic.

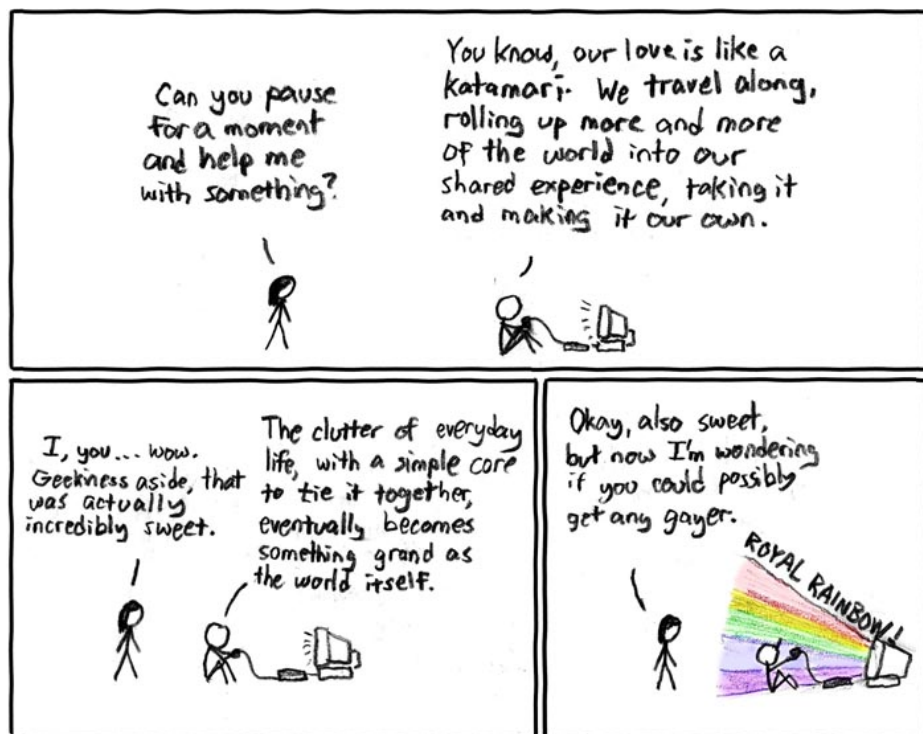
Comics often use artifacts on the frame to add mood to the comic. This comic then makes those artifacts a major

feature of the comic, like a Chekhov's gun ("If you say in the first chapter that there is a rifle hanging on the wall, in the second or third chapter it absolutely must go off.") The use of creative panel layouts and effects was first made possible in newspaper comics at the insistence of Bill Watterson, author of Calvin and Hobbes (which it is known that Randall has been influenced by), requiring lengthy negotiations due to the printing technology of the time. The creative use of panel layout and effects is thus part of the artistic legacy of Calvin and Hobbes. xkcd, among others, has continued along that path of pushing the boundaries of the medium.

The title text "..." could indicate that Randall wasn't being very serious about this comic. But perhaps it was an idea to creatively use parts of the comic nobody thought about, and it spoke for itself and needed no extra comment. The three dots also indicate that something more will happen soon. The reader may visualize the final result and empty square panel, ready for the next unfortunate person to walk into this trap. Alternatively, it could mean that Randall found the comic so bizarre, even he couldn't comment on it (see Trivia section).

#83: Katamari

March 31, 2006



As the King of All Cosmos remarked, 'Is it that it's fun, or that it lets you forget yourself?'

Explanation

Katamari Damacy is a Japanese video game in which the player must roll around an infinitely sticky katamari ball, cottoning up objects and terrain to increase the ball's size. In this comic, Cueball uses the katamari as an analogy for his love for Megan, pushing it to such embarrassing extremes that Megan feels the need to remark whether he could "possibly get any gayer." At this point, Cueball wins the level he is playing and is transported by a "Royal Rainbow," an in-game occurrence at the completion of each level. The rainbow is a symbol of gay pride, in addition to being just a generally happy (i.e. gay) idea.

Cueball also only takes up such a stand after Megan requests that he help her. This is possibly a criticism of male selfishness (perhaps Randall's self-criticism), in that males do not discuss romantic ideas, except as a way out.

The King of All Cosmos, mentioned in the title text, is an instructive character in all of the Katamari games. The title text points out that perhaps we either like or love video games not because they are fun, but because they let us forget our problems and retreat into someone else or an intricate fantasy.

#84: National Language

April 03, 2006

This happened to my friend:



She's pretty sharp when provoked.

Explanation

This comic is about the concept of nativism, which is the view that those who are native to a place should have more rights than immigrants. A frequently expressed view in the U.S. (and in other countries) is that immigrants should learn English, which is the primary language in the United States.

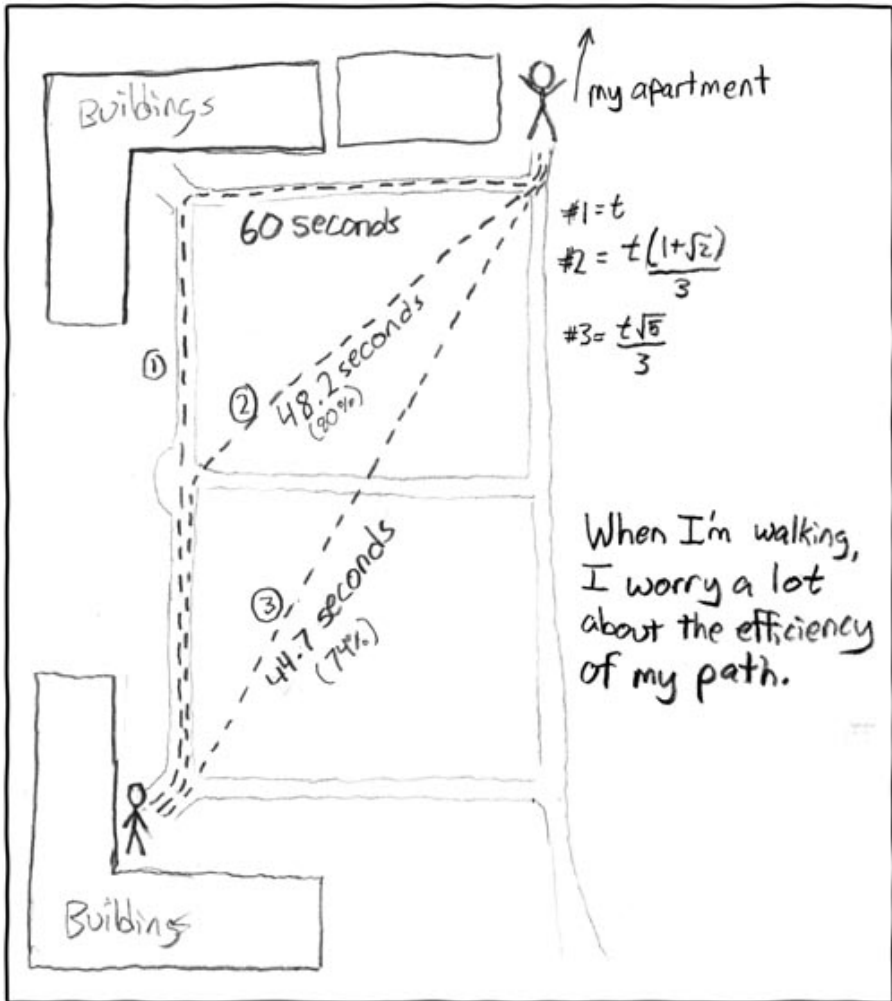
In the comic, one character is arrogantly arguing the nativist position. However, the woman next to him interrupts him and says a phrase in the Cherokee language - "Hello, my name is Sarah" - which is an Iroquoian language used by the Cherokee Native American people. Although Cherokee seems to be a relatively young culture, it is much more native to America than any European culture, such as English.

The woman is therefore effectively suggesting a "what's good for the goose is good for the gander" argument, that if the Europeans did not have to learn the native language, why should current immigrants learn English? She points out that even the English speakers are immigrants who did not learn the native language. Alternatively, she is saying that the term "national language" has no clear meaning, especially in the United States, where there is no official language; therefore, the "language they speak there" can be any of the languages spoken in the country: e.g. English, Spanish, German, Cantonese or Cherokee, to name just a few.

The title text reveals that Ponytail (identified as Sarah in the comic; probably the same Sarah that got engaged to Scott) is in fact Randall's friend; in the comic it is unclear who his friend is.

#85: Paths

April 05, 2006



It's true, I think about this all the time.

Explanation

This comic centers around the consideration of what is the shortest path available to a person traveling by foot. Cueball has to travel across a rectangular distance, which has an established path around the periphery. When Cueball follows these paths, he has to walk for 60 seconds. He realizes that by ignoring the paths and taking the desire lines from corner to corner, his route will be shorter, and he calculates that he could cut up to 26% of his time. As a result, every time he has to travel this rectangle, he worries about the extra time taken as a result of following the path. There are downfalls to this plan, however. This is convenient for Cueball but probably not for the building owner, as many rectangular lawns have delicate decorations such as flowers on them. In some establishments, it may be against the rules (or at least officially discouraged) to cross public lawns.

Each path has labels for the time it takes (e.g. Path 2 takes 48.2 seconds) and the time compared to the longest path (e.g. Path 3 takes 74% as long as Path 1). Each path also has a corresponding equation for in the upper-right corner representing the time each path would take if Path 1 takes t seconds (instead of 60).

Paths[edit]

Each path represents a different way of traveling on/through the two squares that make up the rectangle.

Path 1 takes the long way around both squares. It takes 60 seconds

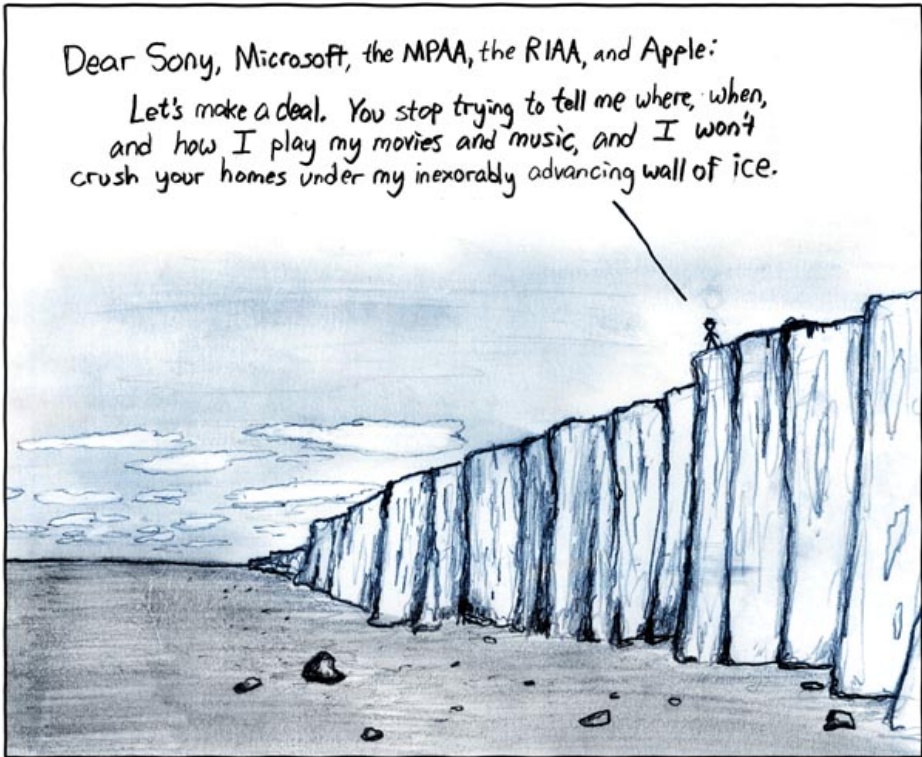
in total, meaning it takes Cueball 20 seconds to walk across each of the three sides. By definition, it takes t seconds to walk the whole path and $t/3$ seconds to walk each side.

Path 2 takes the long way around one square but cuts diagonally across the other. Since each side takes 20 seconds, the total time is 20 (one side) plus $20\sqrt{2}$ (the diagonal) seconds, which adds up to about 48.28 seconds. This is about 80.5% of the full, 60-second path. More generally, it takes $t/3 + (t/3)\sqrt{2}$, or $t(1+\sqrt{2})/3$, seconds to walk the second path (though the percentage never changes).

Path 3 cuts diagonally across the rectangle. The total time is the length of the diagonal, which is $20\sqrt{5}$ (44.72...) seconds, per the Pythagorean theorem. This is about 74.5% of the full path. Generally, it takes $t\sqrt{5}/3$ seconds to walk path 3. (As with path 2, and any other path that scales linearly with the full path length, the percentage doesn't change.)

#86: Digital Rights Management

April 07, 2006



Dear Sony, Microsoft, the MPAA, the RIAA, and Apple:

Let's make a deal. You stop trying to tell me where, when,
and how I play my movies and music, and I won't
crush your homes under my inexorably advancing wall of ice.

If you're interested in the subject, Lawrence Lessig's
'Free Culture' is pretty good

Explanation

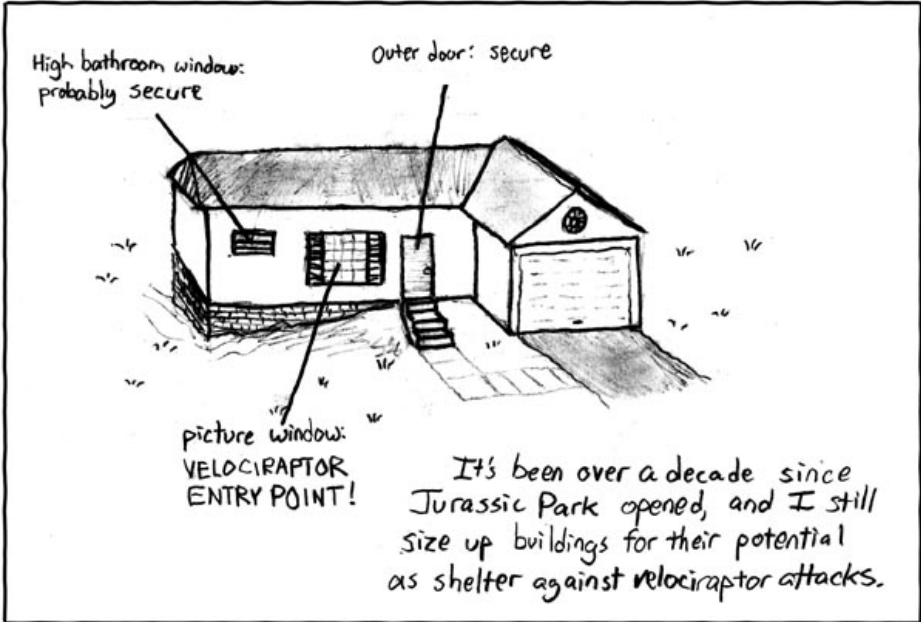
Digital rights management (DRM) is a class of methods for controlling digital files, such as by preventing media from playing on any device besides the device from which the purchase is made. It is used by several major companies, as it makes it more difficult to pirate media, which they claim cuts into their profits. Those companies typically also lobby for laws forbidding circumvention of DRM techniques, like the Digital Millennium Copyright Act (DMCA).

However, DRM is usually disliked by consumers, as it makes it difficult to use their purchased media. For example, if they buy a new computer, there's no guarantee that their DRM-covered media will be usable on the new computer. Thus, Black Hat is suggesting to the pro-DRM organizations Sony, Microsoft, the Motion Picture Association of America (MPAA), the Recording Industry Association of America (RIAA), and Apple that they stop their DRM-fiddling and lobbying, and he'll stop his inexorable ice-wall. However, the "ice-wall" in question is a glacier, which moves much too slowly to be a threat to any of the organizations.[citation needed] (Alternatively, Black Hat is in fact controlling the wall of ice to make it move quickly enough to be a threat to these organizations, in which case forcing them to eliminate DRM would be little trouble for someone with such immense power at his disposal.)

The title text refers readers to law professor Lawrence Lessig's book *Free Culture*.

#87: Velociraptors

April 10, 2006



You're probably thinking, 'has it been a decade?' It's been over thirteen years, buddy.

Explanation

This comic refers to the film Jurassic Park, a 1993 movie based on the 1990 novel by Michael Crichton. The film depicts a billionaire who buys an island and opens a zoo/theme park for dinosaurs cloned from DNA recovered from blood found in fossilized mosquitoes. Naturally, everything goes haywire, and several of the creatures, among which are the velociraptors subject of this comic, try to devour every human in the theme park.

Velociraptors (often shortened as "raptors") are a species of relatively small, carnivorous dinosaur that play a central role in the original film and its sequels. In the film, packs of Velociraptors attack the main characters at various points, even entering buildings; they play a large role in the climax of the film. According to Wikipedia, the velociraptors in the film were erroneously based on Deinonychus. The movie depicts the velociraptors as having scaly reptilian skin, though dinosaurs of this type are now theorized to have been feathered.

As we see in this and future comics, even though it had been approximately thirteen years since he presumably first saw the film, Randall apparently has lived in perpetual fear of a real raptor attack. Specifically, in this comic, he worries how a building would stand up against the creatures. The main risk posed by the house depicted comes by the large window in the living room, through which a Velociraptor could break in (Randall apparently believes that the bathroom window is too high for them

to reach and the door too secure to break through).

The image text points out what he presumes is the reader's disbelief that Jurassic Park had (as of 2006) been released so long ago (thirteen years prior). This is another classic xkcd premise that will later be the subject of 891: Movie Ages five years later, which includes Jurassic Park again. This is the first in a long line of comments and comics Randall has made about how realizing the release dates of things in popular culture can make us feel old.

#88: Escher Bracelet

April 12, 2006



What Would Escher Do?

The only downside is that it would be a little uncomfortable

Explanation

This image parodies "WWJD" bracelets, which is an acronym for "What Would Jesus Do?". Christians (primarily) wear such bracelets (or other "WWJD" paraphernalia) as a reminder to act in a way that Jesus would act, which presumably is the "Christian" way to act. It is not entirely clear, but this particular bracelet appears to be the rubber type most famously popularized by the yellow ones of cyclist Lance Armstrong's Livestrong charity, which later became a popular fad for all sorts of charitable and non-charitable causes.

In this comic, the "J" has been replaced by an "E" for M. C. Escher, a Dutch graphic artist (1898–1972) best known for art containing imagery that would be impossible in the real world (often referred to as impossible constructions or optical illusions). Among his most famous works are "Drawing Hands" – two hands drawing each other on paper; "Relativity", in which a series of staircases and arches come from the floor, ceiling, and the walls in all directions, each with people standing on them as if each direction is "down"; and "Ascending and Descending" – a building with a staircase on its roof that is a closed square that appears to ascend or descend infinitely, depending on the direction that is walked.

In keeping with Escher's art, the WWED bracelet has a single half-twist in it, creating what is known as a Mobius strip. Although this is not an impossible construction, it

is still an apparently confusing structure that Escher used in his art. Most notably, his work "Mobius Strip II" depicts ants crawling around a Mobius strip. One can create this shape simply by taking a strip of paper (or any bendable material), making a half twist, and attaching the ends together. If you draw a single continuous line starting down the centre of the bracelet from the middle of the "W" going left, you will end up drawing from the "WWED", going around again on the "inside" of the bracelet, before coming back around to the front again and ending up at the "D". In other words, the surface of the bracelet has only one side (the front and the back are the same side). The phrase "the only downside" in the image-text may be a pun referencing this one-sidedness. As the title text suggests, the twist in the bracelet might make it uncomfortable to wear.

#89: Gravitational Mass

April 14, 2006

Gravitational mass is identical to inertial mass. That is, the amount of inertia something has and the amount of gravity it has are effectively the same. What's interesting is that there doesn't seem to be any reason this should be true. One could imagine an extremely large object with lots of resistance to force and no gravity (or vice versa), but this is never observed.



You know what? I'm just gonna skip the rest of the buildup and say it:
Yo mama's fat.



She's so fat the attraction goes up as the **CUBE** of the distance instead of the square

Explanation

Black Hat launches into what appears to be an in-depth exposition about the equivalence of gravity and inertia. As he notes, an object's "inertial mass" (the degree to which it resists a change in velocity) and its "gravitational mass" (the degree to which it attracts and is attracted by other objects) are the same. He states that there isn't an obvious reason why they should be related like this, suggesting that a high-inertia, low-gravity (or a low-inertia, high-gravity object) should be possible.

However, it transpires that this whole speech is just a convoluted build-up to a "Yo mama" joke along the lines of "she's fat and not that attractive." Black Hat then can't be bothered with, or can't figure out, the lengthy route to his punchline, so just goes for a straightforward insult instead.

A well known joke format goes: "Yo' momma's so fat, when she X, she Y." For example: "Yo' momma's so fat, when she sits around the house, she sits around the house!" Variations play with the format, for example: "Yo' momma's so fat, she fell in the Grand Canyon and got stuck!" A "Yo' Momma" joke also appears in comic 681: Gravity Wells to the right of Jupiter.

The title text is a play on the law of gravitational attraction, which diminishes as the square of the distance, so if the distance between two objects doubles, the attraction is reduced to a quarter, and if the distance

is halved, the attraction quadruples. Black Hat is saying that the attraction goes up as the cube, so if the distance is halved, the attraction increases eight-fold, and decreases eight-fold when the distance doubles. This implies that "your momma is so fat, she breaks the laws of physics (and does so in a way that she isn't as attractive as physics would dictate, given enough distance)." The title text is slightly ambiguous; it seems to say that as distance increases, the attraction increases, but it doesn't explicitly state whether the distance is increasing or decreasing.

Note: Contrary to Black Hat's explanation, and as per Albert Einstein's theory of general relativity, one possible reason that objects have equal gravitational and inertial mass is that anything with mass or energy causes a warping of space-time that causes all other objects (including such objects that classically shouldn't be affected, like photons) to experience the same gravitational acceleration.

#90: Jacket

April 17, 2006



We have this conversation at least once a day in my apartment

Explanation

Cueball clearly means to use fucking as an intensifier. However, the friend (likely intentionally in response to the unnecessary swearing) takes fucking to be an identifier of which jacket is being discussed, and gives a smart-aleck response implying that Cueball wears the jacket while having sex. His counterpart gets confused by the sarcasm, and the topic is dismissed.

The title text states that this often occurs in Cueball/Randall's apartment.

#91: Pwned

April 19, 2006

Welcome to text-only Counterstrike.

You are in a dark, outdoor map.

> GO NORTH

You have been pwned by a grue.

I'm sure a discussion of the reason for the disappearance of adventure games in favor of RPGs would be fascinating

Explanation

In the days of early computing, before personal computers, when mainframes were the only option for computing, such as the DEC PDP-10, or IBM SYSTEM/360, games were largely text-based adventure games distributed over ARPANET. The first of these games was Colossal Cave Adventure, or ADVENT. This was proceeded, however, by the vastly popular ZORK trilogy, originally on the PDP-10, but later ported to DOS and other systems, allowing it to reach a much wider audience. These games were based on an interactive story, and the player had to solve a puzzle on this by communicating to the application using only a keyboard. Play proceeded as such: the computer displayed some textual context, you entered a command (GO <direction>, TAKE <object>, KILL <person>, LOOK AT <object>, etc.), and the computer responded by giving the outcome of your command. This sparse context arose from the fact that games in the 1970s and 1980s needed to run on limited memory and microprocessor capacity, and on basic displays.

Over the following 20 years, technical advances allowed games to run in a real-time graphical context. Adventure games were largely displaced by other genres, including Role Playing Games (RPG), where the player navigates a character through a graphical environment to achieve goals or gain in abilities, often involving a combat component. While the broad structure of these has a lot of similarity to adventure games, the experience is very

different.

In Zork, specifically, players have to evade predators known as grues, which fear light, but love to devour adventurers entering the dark. Because the game is text based, it therefore does not offer any way to know that a grue is approaching, meaning that the phrase "You have been devoured by a grue." put an end to many runs.

"Counterstrike" is a reference to the Half-Life mod Counter-Strike and its subsequent sequel. In the Counter-Strike series, you are either a terrorist or a counter-terrorist operative, and your goal is to stop the other from completing their objective. On a dark map, players would generally use night vision goggles, which don't produce light that would give away their position to the enemy.

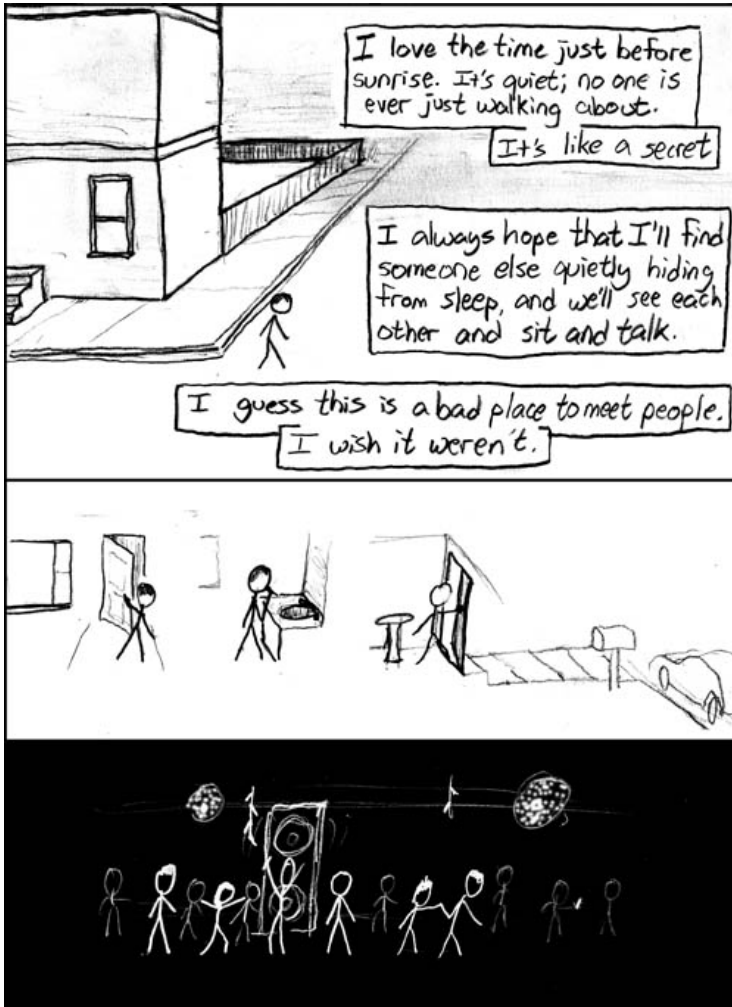
Randall imagines a version of Counterstrike played in the text-context of Zork. Ironically, the outcome is not so different to what might be a typical experience of Counterstrike gameplay, particularly for inexperienced players: on starting the game, the player moves to another room and is immediately "pwned" (a typical online gaming term meaning beaten, killed, or trapped/tricked, originating as a typo of "owned") by an enemy.

In the title text, Randall suggests that a comparison of the genres, analyzing the reasons why RPGs have proved more popular, would make an interesting study. His imagined example suggests that what has been gained in immersive environments may have been lost in

complexity of story and gameplay.

#92: Sunrise

April 21, 2006



Sometimes, I sit on top of parking decks and watch the sun rise. I feel like I should have a guitar or something.

Explanation

This comic is about the desire for an intimate connection with another, and the compromises we make to not be alone.

Hairy finds a certain beauty in the way the world looks without billions of humans crawling around on it. He thinks of this as a secret place that thrills him. He is excited about the remote chance of finding someone like him who appreciates its beauty. But he realizes that it's the very thing that makes this time beautiful to him that makes his imagined chance encounter exceedingly unlikely. Reconciled to the fact that he will not find a kindred spirit outside this morning, he heads back home.

At the house, he gets ready and drives to a club to meet people. The club is drawn using an inverted color scheme (white people, black background) to emphasize that it is the opposite of the outside world Hairy was enjoying. The club is dark and full of people, who are the lightest things present, while in the outside scene, the natural beauty shines without interruption by human forms. Hairy is seen alone in the middle of the crowd.

The title text is a reference to a common music video scene (sometimes country music videos) in which people play the guitar on parking garages as the sun rises.

#93: Jeremy Irons

April 24, 2006

But as THICK as you are, pay attention
My words are a matter of PRIDE!



My goal: To make enough money to hire
Jeremy Irons, the voice of Scar
from *The Lion King*, to follow me
around and do my dialogue.

Movies that I know word-for-word, part one

Explanation

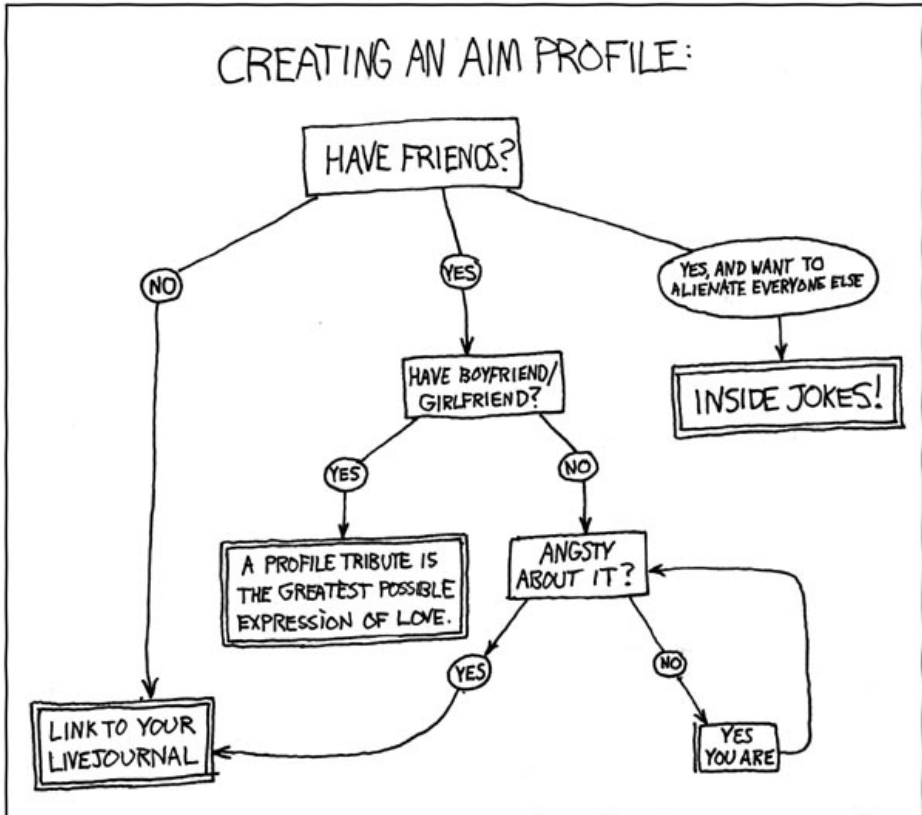
Similar to the My Hobby series, this comic depicts one of Randall's goals in life: He wants to hire Academy-Award-winning actor Jeremy Irons to deliver all of Randall's dialogue in life (while Randall, perhaps, lip syncs it). He is apparently basing this desire on the fact that Irons, a classically trained English actor, portrayed Scar, the main antagonist in the 1994 Disney animated feature *The Lion King*.

The line spoken in the comic is from the song "Be Prepared", which Scar sings in the film. Thus, it's not entirely clear whether Randall enjoys Irons's deep, rumbling British-accented voice, or whether it's Scar's dialogue in the film that Randall truly would like to be speaking.

The title text suggests that Randall knows the dialogue of *The Lion King* from memory; it also suggests that there are others he knows as well. He is around the appropriate age to have been in the target market for the film (he would have been around 10 at the time) and probably saw it many times.

#94: Profile Creation Flowchart

April 26, 2006



This one goes out to xxCrazyPixie1987xx

Explanation

AIM (short for AOL Instant Messenger, now defunct) was an instant messaging software that offered its users profile pages to share info about themselves or their friends. Randall notes that these pages fall into one of three categories:

- People without friends or significant others who linked to their LiveJournal (a blogging service popular in the early 2000s);
- People with friends and significant others who would celebrate their relationship all over their page;
- People with friends who would fill their profile with inside jokes only their friends could understand.

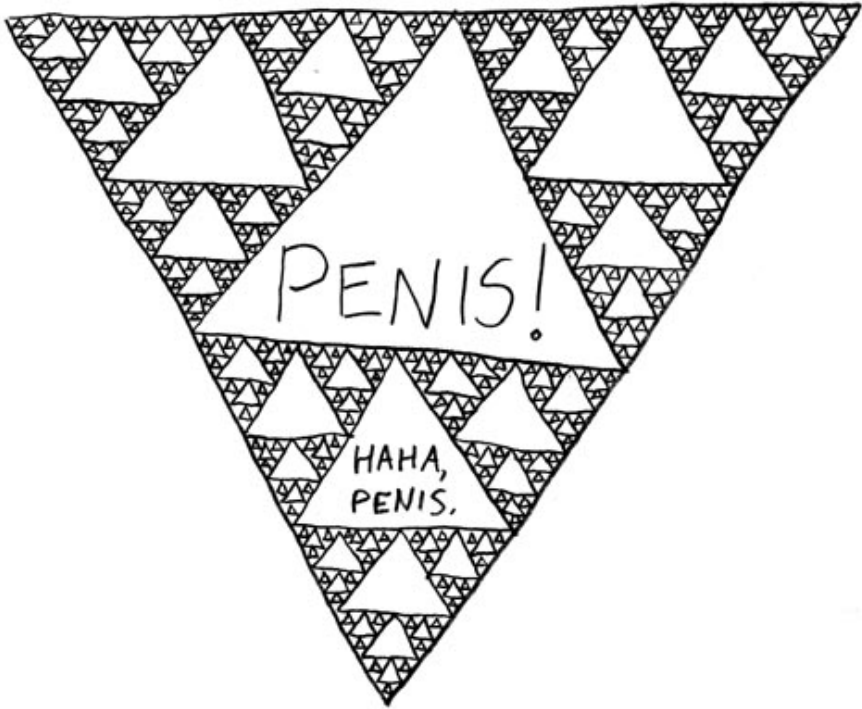
The "Angsty about it" -> "Yes you are" section implies that everybody who does not have a boyfriend or girlfriend is upset and wishes they did.

Both AIM and LiveJournal were known for their teenage user base, as shown by the title text's fictional AIM screen name.

The title text seems to reference the kind of behavior someone with a tribute page would display, but is actually an example of an inside joke, for cartoonists. The text comes from Natalie Dee Comic 956, from January 8, 2006, a few months before this xkcd comic was published on April 26 of the same year.

#95: The Sierpinski Penis Game

April 28, 2006



Inappropriate places for the Penis Game include baby showers and terrorist attacks

Explanation

The Chaos Game is a method of generating a fractal by repeatedly applying randomly-chosen transformation functions to a point and plotting the position of the new point each time. The transformation functions are randomly chosen from a small, predefined list. The surprising result of this is that, even though the functions are picked randomly, a distinctly non-random fractal image emerges. The exact nature of this image depends on the list of transformation functions used.

One such fractal that can be produced by the Chaos Game is the Sierpinski Triangle, which is the fractal pictured in this comic. See details in this video.

The Penis Game, on the other hand, is a childish activity where people (usually schoolchildren) compete to shout "Penis!" increasingly loudly in the presence of an authority figure (usually a teacher) without getting in trouble.

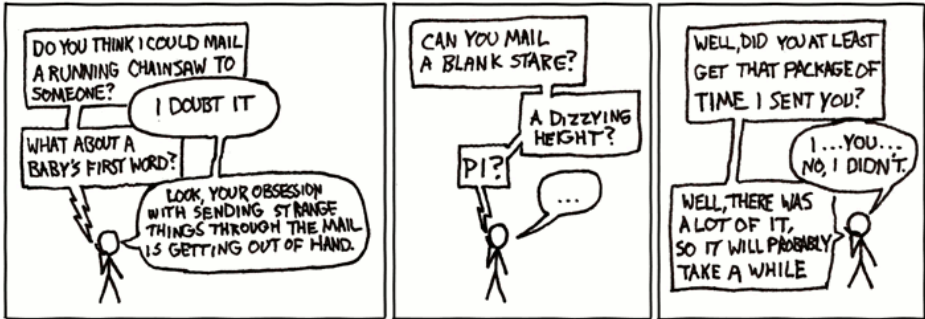
The two games could be said to be similar in that they both involve iterations of transformations; in the Chaos Game, a point's position is transformed (moving it closer and closer to the attractor set of the transformations); in the Penis game, the volume of the phrase "Penis!" is transformed (becoming louder and louder). The difference is that the Chaos Game works by negative feedback (eventually settling down into a well-defined image) whereas the Penis Game involves positive

feedback (at some point, the cry of "Penis!" will become loud enough that the culprit will get in trouble and the game will end). Nonetheless, they could be vaguely considered inverses of each other, and Randall appears to be conflating the two in this comic.

The title text mentions two inappropriate places to play the Penis Game. A baby shower is supposed to be a celebration of childbirth or pregnancy, so it would be an inappropriate place for such crude humor. A terrorist attack is typically a time in which lives are lost, so it would be very immature to play such a crude game.[citation needed] The title text may also be calling attention to the fact that a mathematical object such as a fractal is also an inappropriate place in which to be playing the Penis Game.

#96: Mail

May 01, 2006



I'm on the USPS No Fly List

Explanation

Cueball's interlocutor is working their way through a list of increasingly impractical or impossible suggestions for things to send through postal mail. The pay-off is that they have already somehow sent a package of time through the mail, and this is taking a while to arrive, presumably because the amount of time it will take to reach the recipient is equal to the amount of time being sent. By the time it reaches Cueball, the time will have passed, and therefore not be of much use.

The reference to a 'package of time' could refer to quantizing time ("discrete packets of time") - a theory that time is not continuous, like particles in the quantum mechanics.

A no-fly list is a list of people who are not allowed to use commercial airlines for travel. In the United States, it is maintained by the Terrorist Screening Center. According to the title text, the person sending strange objects through mail is on a no-fly list for the United States Postal Service (USPS). While the USPS has a list of items banned from being shipped in the mail, which includes most consumer electronics with lithium batteries, it does not have such a list for people. This could suggest that this person has attempted to send so many strange items that USPS will no longer accept mail from him, or it could imply that they attempted, at one point, to send themselves via air mail, and have been banned from doing so again.

This comic might be related to W. Reginald Bray, an Englishman from the turn of the 20th century, who was famous for mailing unusual objects (including himself) to experiment with the postal system.

A list of the things:

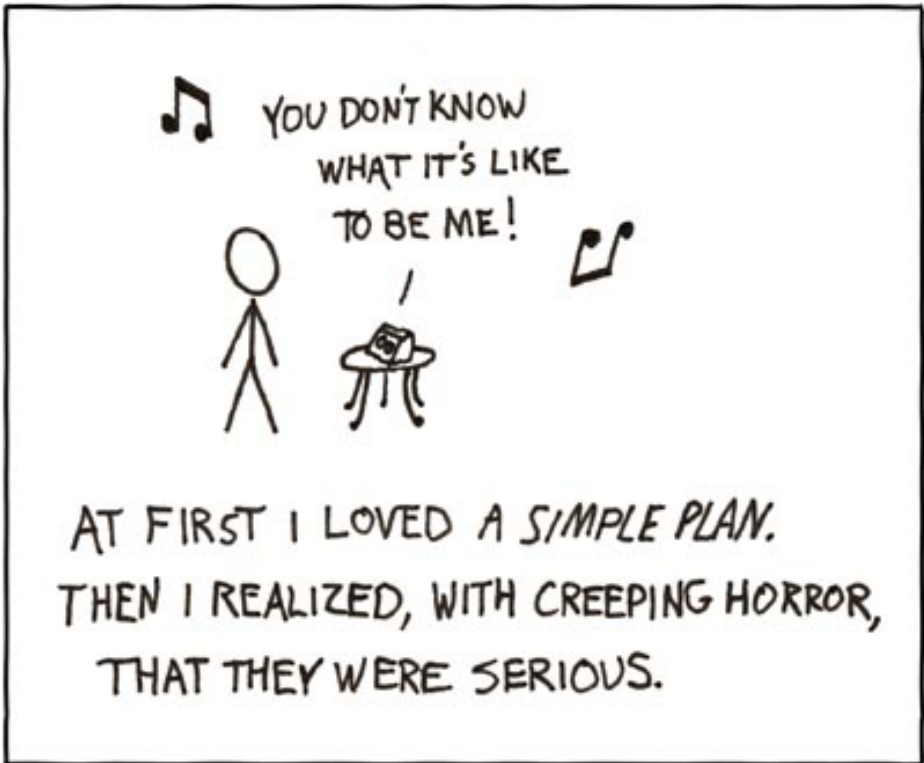
- A running chainsaw: While a chainsaw may be mailed with appropriate precautions, a running chainsaw would be very dangerous to mail, assuming there was a constant power source.[citation needed] However, unlike the other suggestions, it is at least theoretically possible to mail a running chainsaw, as it's the only entirely physical object with a body that can be put in a container and handled by a mail worker.
- A baby's first word: This is a sound, and thus cannot be mailed. It could be recorded, and the recording mailed.
- A blank stare: This is abstract, and the closest to mailing it would be a picture.
- A dizzying height: Like the above, this is abstract. However, someone could conceivably package and mail a telescoping ladder, such that it would allow the recipient to reach a dizzying height.
- Pi: This is a mathematical term close to 3.141592653589793238462643383..., but it is infinitely precise and thus cannot be mailed to the full extent of its precision. However, with a compass and ruler, someone could draw a graph that would represent a line of length pi. (It would be considerably easier to mail pie, which is a homophone of pi...though

also a poor substitute.)

- Time: This is completely abstract and cannot be mailed.[citation needed]

#97: A Simple Plan

May 03, 2006



This is true. The lyrics are ridiculous.

Explanation

The song on the radio is "Welcome to My Life" by Simple Plan (not A Simple Plan), which was released in 2004 as a first single from the band's second album "Still Not Getting Any..." The lyrics of the song mainly deal with the frustration of adolescence and the stress of newfound independence. Many, if not all, adolescents go through a phase where the ongoing realization of becoming fully responsible for their body, mind, and personality frightens them.

Simple Plan's lyrics seem particularly inappropriate and ridiculous, given that the members of the band are all in their 30s. The absurdity of middle-aged men expressing teen angst could be interpreted as a spoof or parody, which Cueball mistakenly believes to be the truth. In the comic, Cueball slowly comes to the horrifying realization that the members of the band are actually seriously whining about the typical life of a spoiled teenager, rather than parodying them.

In the title text, Randall states that this was his own reaction to the song, and that he now considers it ridiculous.

#98: Fall Apart

May 05, 2006



#pugglewumper Tashari got me some ink pens! I've been experimenting with them.

Explanation

Despite Randall being enthusiastic about receiving ink pens, his first experiment with them has resulted in a rather bleak comic.

Instead of multiple panels, the entire comic is a single drawing, with an apparent passage of time as we travel down the page. The frame, which represents the world of the characters, gradually disintegrates and leaves them falling helplessly. At the top, we see some people standing alone, apparently happy enough, and a couple. As we descend the page, we see examples of a couple split by a narrow chasm, someone huddled isolated and alone on their own world fragment, a couple desperately trying to hang on to each other, and a single figure falling chaotically and without control.

The comic seems to be expressing what it feels like to someone when a relationship breaks up — their world falls apart, and one of the implications is that the process cannot easily be reversed -- an idea further explored in 104: Find You.

The identity of '#pugglewumper Tashari,' the supplier of the pens, is not known. Judging by the use of the hash sign, it is someone with whom Randall communicates in IRC. In fact, 'pugglewump' appears to be an IRC channel. Although hashtags later came to be strongly associated with Twitter, this was not true at the time the comic was drawn.

#99: Binary Heart

May 08, 2006



i love you

Explanation

An array of zeros and ones is depicted, 21 across by 23 down. Some of the zeros and ones are red instead of black to form the shape of a Valentine heart.

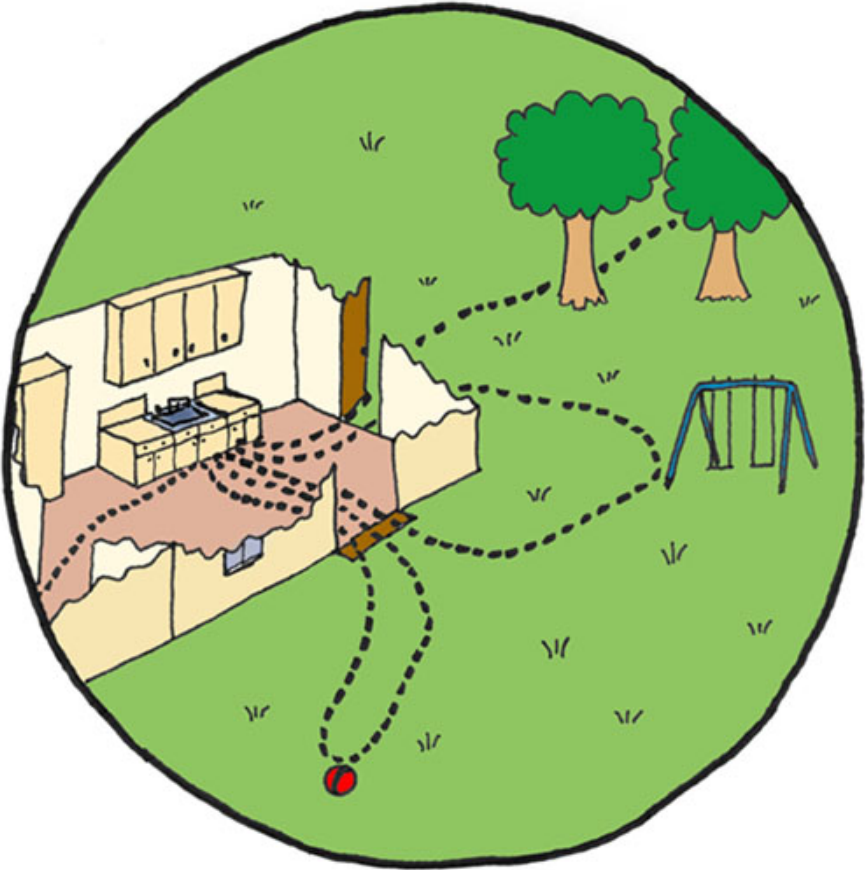
The digits themselves are an ASCII bit stream reading:

The final octet is incomplete, but the three bits that are present are consistent with the start of an "e".

The mixture of upper-case and lower-case "O"s is presumed intentional to avoid a repeating pattern.

#100: Family Circus

May 10, 2006



Jeffy's ongoing struggle with obsessive-compulsive disorder

This was my friend David's idea

Explanation

The Family Circus is a comic characterized by single-panel round comics with a caption below the comic. Jeffy is a character in Family Circus, and dotted lines representing his wanderings are a frequent theme of Family Circus comics. Obsessive-compulsive disorder (OCD) is a mental illness that compels the sufferer to perform repetitive actions. Common symptoms include, but are not restricted to, excessive hand washing and repeated opening and closing of a door.

The comic depicts the character Jeffy as having Obsessive-Compulsive Disorder and traces his movements over a period of time. The dotted line that depicts his movements returns frequently to the kitchen sink, presumably either to repeatedly wash his hands or to make sure that the faucet was turned off.

In the title text, Randall attributes this idea to the unknown friend David. He did the same in 42: Geico and 51: Malaria.

#101: Laser Scope

May 12, 2006



I wish I'd missed you then so I wouldn't be missing you now

Explanation

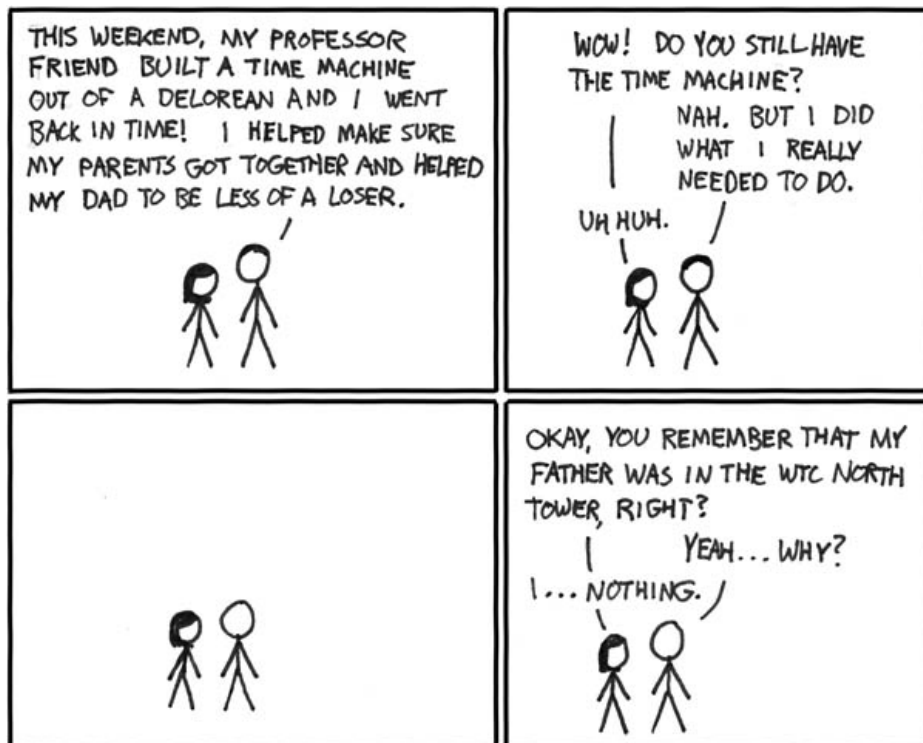
This comic plays on the homonymic relationship between "miss" (to feel sad due to the absence of someone) and "miss" (to fail to hit – in this case, with a gunshot). "Miss your loved ones?" is a question that would generally use the former "miss." However, its use on the package for a laser scope implies the latter "miss."

A sighting scope can be attached to a firearm to aid in aiming the weapon. The addition of a laser improves the accuracy of the weapon by making it easier to aim consistently. The model number RJX-21 does not appear to be a reference to anything, and this comic is primarily a play on a common marketing technique of adapting a common saying to your own product by use of homonym or homophone; in this case, it is perhaps an inappropriate use, as one would not be expected to be aiming a firearm at their loved ones. In real life, this would imply a serious family breakdown with extreme feelings of pain and revenge, which is actually a tragically sad story, not the normal fodder for a light-hearted joke.

The title text hammers it home with the dual use of the word "miss," as the writer wishes he had missed (failed in his attempt to shoot) someone so they would not miss them (feel bad that they are not there), implying that he shot a family member, and is now feeling the grief. The humor here is that the writer apparently still cares about his loved one, despite having shot them in the past.

#102: Back to the Future

May 15, 2006



He's kind of an asshole, when you think about it

Explanation

This comic is a reference to the film *Back to the Future* in which the protagonist, Marty McFly (played by Michael J. Fox), travels back from 1985 (present day for him) to 1955 and accidentally interferes with his own parents' first meeting. He must then arrange for them to fall in love before he ceases to exist due to the paradox of his own parents never having children. An unintended side-effect of the way events occur is that his dad gains self-confidence in the past and becomes "less of a loser" in the present.

As noted in the comic, the time machine Marty uses is built by his professor friend, Doctor Emmett L. Brown (Christopher Lloyd), out of a DeLorean DMC-12 (a 1980s-era sports car).

Hairy (Cueball in the last two panels, as the art is inconsistent in this early comic, and his hair is removed in the last two panels) has had a very similar experience. He suggests that the aforementioned changes to history are what he really needed to do. After a frame of awkward silence, Megan reminds him that her father was in the World Trade Center (WTC) North Tower – implying that he died along with several thousand others in the North Tower on September 11, 2001 at the time the tower collapsed due to a terrorist-flown passenger jet crashing into the building. Megan is therefore implying that saving her father's life (and perhaps the lives of the other 9/11 victims, or even preventing other disasters in

history, such as the 2011 earthquake and tsunami in Japan, or the Holocaust, scenarios that would be revisited in later comics) might have been something else of importance he "needed" to do — perhaps something of significantly more importance than just helping his father. He seems completely oblivious to what she is trying to suggest. Megan starts to explain, but apparently decides that there's no point even trying to get through to him.

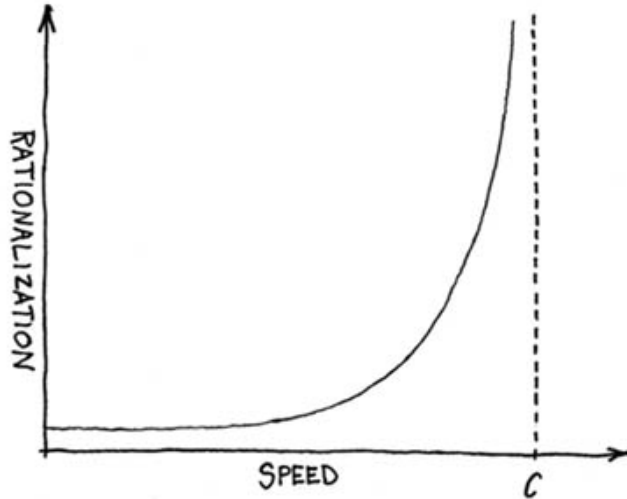
The title text is presumably calling Marty McFly an asshole for not doing something more benevolent for humankind when he traveled back in time, just as the comic implies of Hairy/Cueball. It could also be someone (likely Hairy/Cueball) trying to justify the choice, by saying that Megan's dad was "kind of an asshole."

As a side note, for the comic to make sense, the events in the comic must take place after September 11, 2001, and not 1985 as it is in the movie. Since no dates are mentioned, Hairy/Cueball probably went back by thirty years, because that's how far back Marty travels in the film.

#103: Moral Relativity

May 17, 2006

MORAL RELATIVITY



RELATED TO MORAL RELATIVISM, IT STATES THAT ETHICS BECOME SUBJECTIVE ONLY WHEN YOU APPROACH THE SPEED OF LIGHT.

THAT IS, IT'S OK TO BE SELF-SERVING, STEAL, AND MURDER AS LONG AS YOU'RE GOING REALLY, REALLY FAST.

(NOTE: THIS IS WHY RAP SOUNDS BETTER ON THE HIGHWAY AT 90 MPH)

It's science!

Explanation

This comic plays on the similar sounding terms relativity and relativism.

Moral relativism is a position in the philosophical field of ethics that holds that moral judgments are not absolute, but vary depending on the circumstances involved and the person (or people) making them. Philosophers who hold this kind of position are often mischaracterised as believing that 'it's OK to be self-serving, steal, and murder.'

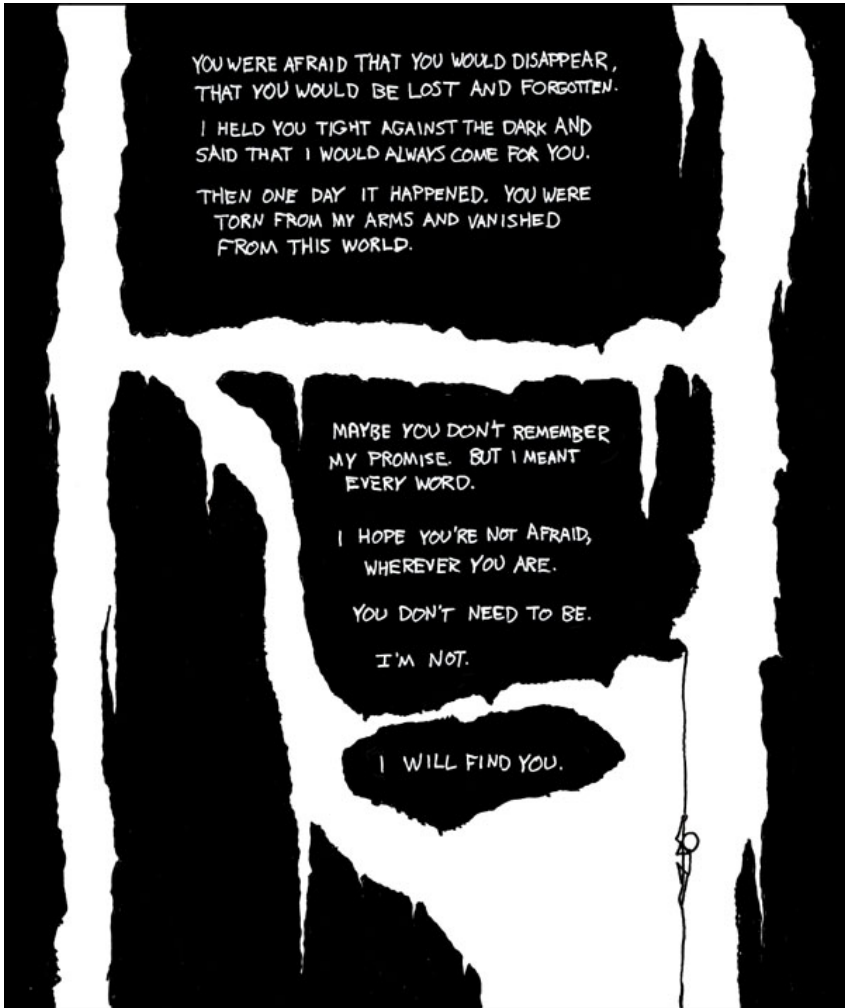
The scientific theory of relativity predicts (among other things) that measurements of an object change the closer to the speed of light it travels: length contracts, observed time slows down, the notion of separated simultaneous events is relative, and so on.

Randall claims to have created a new philosophy called "Moral Relativity," which appears to be a mash-up of the two ideas, where things that are typically considered unethical become more acceptable as the subject's speed increases. This supposed theory of ethics is cited to explain why rap music, perhaps particularly Gangsta rap, which often has lyrics describing rape, murder, and substance abuse, is better when traveling at speed. Music videos for Gangsta Rap also frequently feature cars speeding on the highway. The graph is a parody on that of the Lorentz factor, which is the factor by which time is dilated and length contracted.

Note that relativity in the Theory of Relativity (in physics) came from the principle of relativity: the idea that equations describing the laws of physics have the same form in all admissible frames of reference (as opposed to moral relativity).

#104: Find You

May 19, 2006



I'm like the Terminator, except with love!

Explanation

This comic depicts Cueball climbing on a rope in a cavern. The text indicates that one of his loved ones used to be afraid of being taken away from him and being forgotten. It is not explicitly made clear whether the loved one in question is a woman with whom he is in love, a family member, or a relation of some other kind, but presumably the loved one is his partner.

Cueball had promised that he would always come looking for this person, but then they were actually taken from him. He reiterates that he was serious about his promise, and that he hopes they are not afraid, because he's coming to find them.

It's not clear exactly in what manner his loved one was taken from him, only that they were torn from his arms and vanished from this world. Though there are many other possible interpretations, this might be read to indicate that they have died and that Cueball is descending a cavern in search of the underworld where they have been taken.

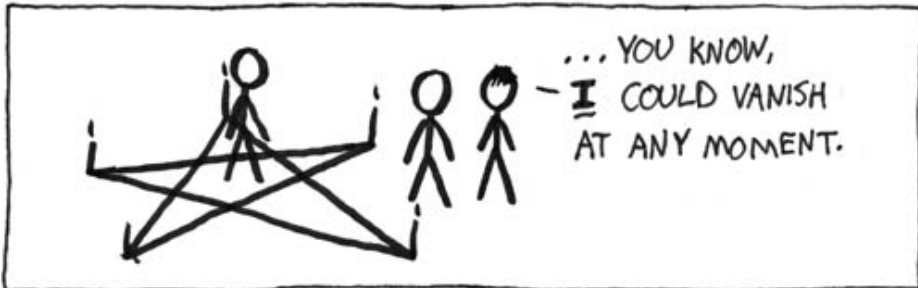
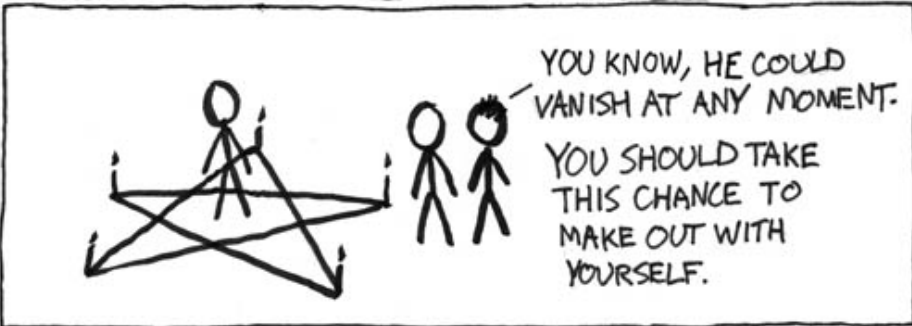
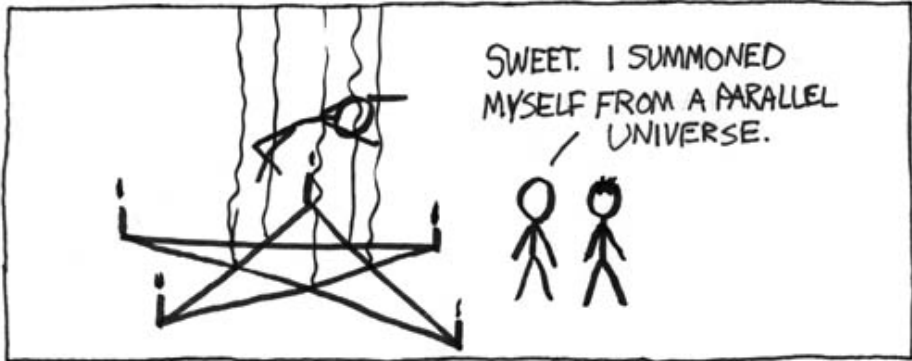
The title text compares Cueball to the apparently unstoppable Terminator, from the 1984 film of the same name, in which Kyle Reese, talking to Sarah Connor, gives the following description of the Terminator: "It can't be bargained with. It can't be reasoned with. It doesn't feel pity, or remorse, or fear. And it absolutely will not stop, ever, until you are dead." The implication is

that Cueball, motivated by love, can't be persuaded to stop looking for his loved one by any means, and that he will never stop looking until he finds them.

This may be a continuation of 98: Fall Apart.

#105: Parallel Universe

May 22, 2006



It's possible. Better to be on the safe side.

Explanation

Cueball has (by some ritual, judging by the pentagram) summoned himself from a parallel universe. Hairy suggests that Cueball should take advantage of this rare opportunity and make out with his other self.

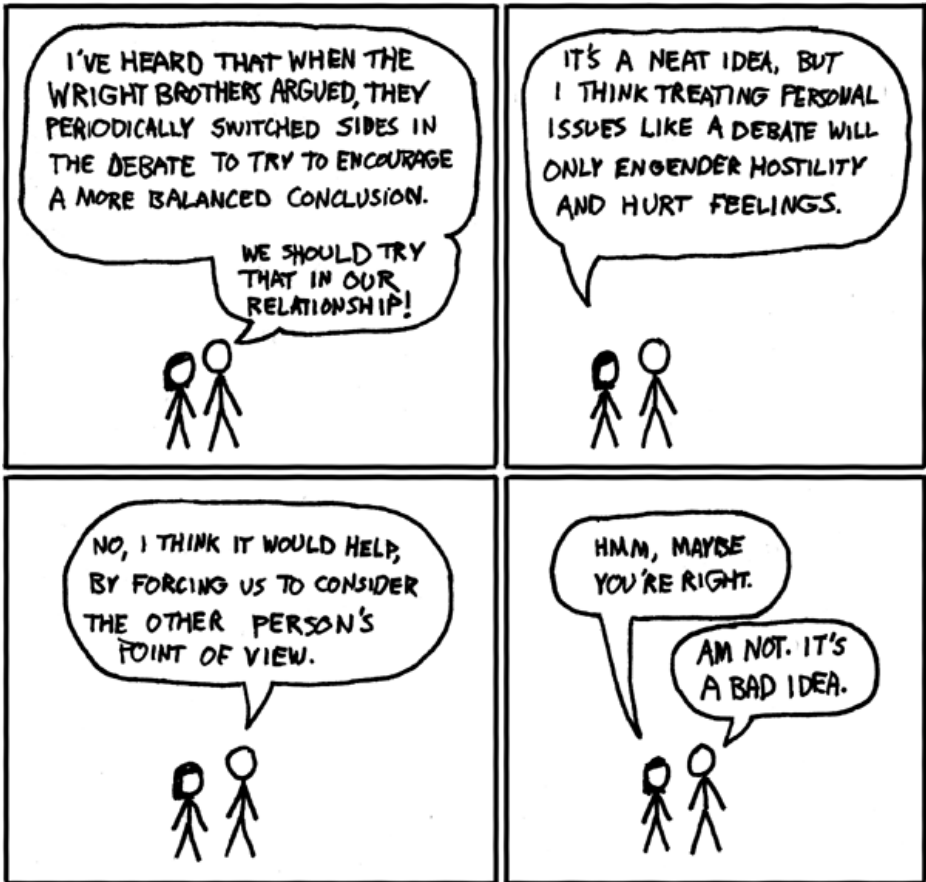
In the third panel, Cueball seems to turn his head in response to the unexpected response. Hairy suggests that Cueball should make out with him instead, since he could also vanish at any moment. This indicates that Hairy may be attracted to Cueball, and he may have made the previous suggestion with the ulterior, voyeuristic motive of observing two attractive people making out with each other.

The title text is ambiguous. It could mean that Cueball should not risk his other self disappearing, or it could mean that the risk is Hairy disappearing.

Making out with yourself is also mentioned in 267: Choices: Part 4.

#106: Wright Brothers

May 24, 2006



I'm not sure if this is actually true

Explanation

The Wright brothers are Orville and Wilbur Wright, who are credited with the invention of the airplane and the first "controlled, powered, and sustained heavier-than-air human flight" in 1903.

Cueball mentions to Megan that the Wright Brothers would sometimes argue each other's point during debates in order to "encourage a more balanced debate" – presumably so both brothers would explore all of the arguments on both sides. Megan is initially against the idea, stating that treating emotionally-charged personal issues as if they were academic debates would not work. Cueball argues that it would force each person to consider the other's point of view. However, when Megan reconsiders, accepts his argument, and appears to agree that they should try it, Cueball abruptly switches his position to thinking that it's a terrible idea. The joke is that once Megan agrees with him, he employs his Wright Brothers suggestion and takes her initial position that the idea was bad. Thus, the two have switched their arguments and are now exploring the other sides. They may continue in this way to form a well balanced conclusion on the proposal or continually switch sides without ever concluding the argument.

The title text suggests that Randall may either be misremembering the fact that the Wright brothers used this technique, or not be convinced that the source is reliable, but has decided to assume it is true just so that

he could make the joke in this comic.

#107: Snakes on a Plane! 2

May 26, 2006



James suggested this, and I have to agree. It'd be much worse.

Explanation

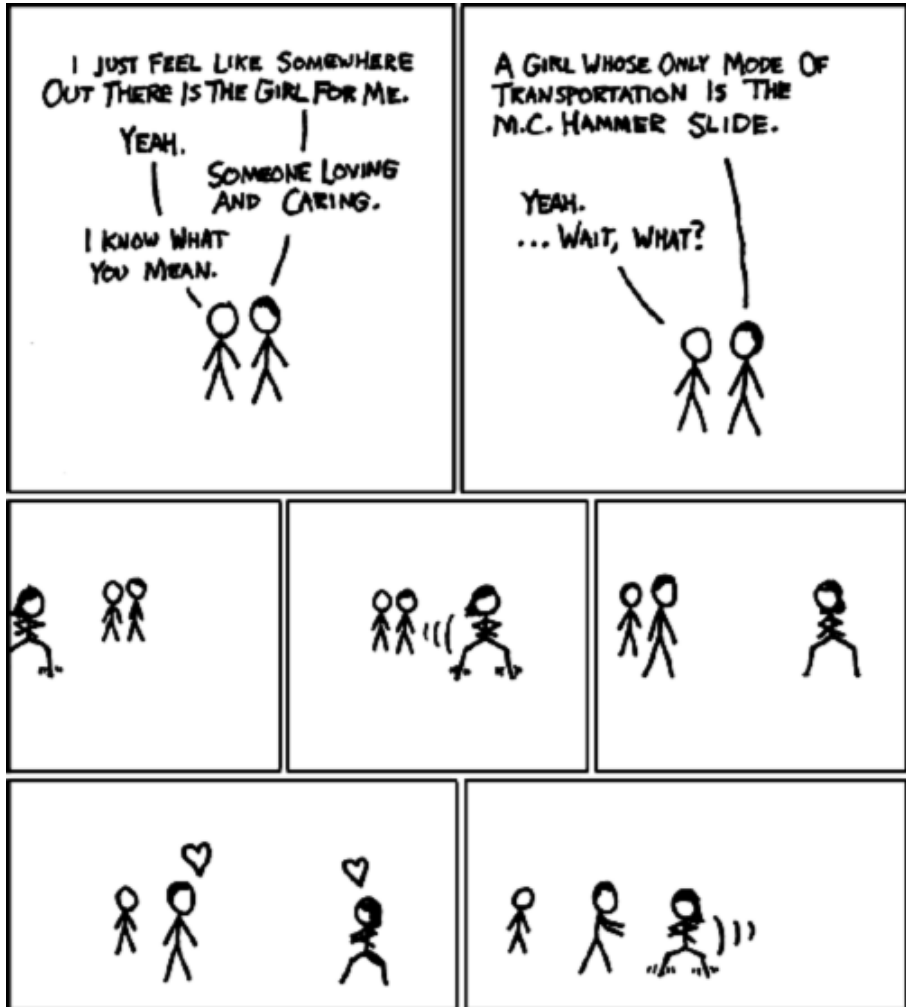
Snakes on a Plane is a 2006 movie starring Samuel L. Jackson. It features (surprisingly) snakes, on a plane, attacking the passengers. This comic proposes a sequel, taking the idea to the next level, making things infinitely worse: snakes on every plane!

To have snakes on every plane is much worse than snakes on just one,[citation needed] as many more innocent bystanders would be injured or killed, and the entire aviation industry would be destroyed. Plus it would be difficult, as there were hundreds of snakes in a single plane in the first movie, so finding enough snakes would be a challenge itself. Since the original movie was generally considered to be quite bad, there is an implied double meaning in the suggested poster, that the movie itself would be "Much Worse Than Last Time."

In the title text, Randall credits James Zetlen with the idea.

#108: M.C. Hammer Slide

May 29, 2006



Explanation

The base part of the comic is self-explanatory: Girl attracts Boy, Boy notices Girl, Boy approaches Girl, Girl reacts positively, Boy falls in love, Girl decides to answer lovecall, happily ever after, etc. The quirk in this comic is that the way Girl catches attention of Boy is through the signature move of 1980s rapper MC Hammer (the slide). To watch MC Hammer doing the slide, [click here](#).

The title text indicates that Randall once saw a girl go by and regrets that he did not speak with her as Boy does in this comic. It is possible that the girl Randall is referring to was actually doing the slide.

#109: Spoiler Alert

May 31, 2006



And then it turns out they're both Tyler Durden.

Explanation

Severus Snape is a character from J.K. Rowling's Harry Potter series of books, Trinity is a character from The Matrix trilogy of movies, Rosebud is from the 1941 film Citizen Kane, and, from the title text, Tyler Durden is a character from the novel and movie Fight Club. All four references share the common ground that they are all involved in significant events or ideas in their respective movies that have been often spoiled by careless viewers for those who have not yet seen the movies. Here, the relevant events are mashed together into one and spoiled in one go.

Spoilers[edit]

- Snape kills someone important
- Trinity dies
- Rosebud is a sled
- Tyler Durden, mentioned in the title text, is both characters

As mentioned above, this is an amalgamation of four spoilers from four different stories:

- In Harry Potter, Snape (a professor at the Hogwarts school) kills Dumbledore (the headmaster) at the top of the Astronomy Tower in the penultimate book of the series, "Harry Potter and the Half-Blood Prince" (in the final book, we learn that it was part of Dumbledore's plan).
- Trinity (the female protagonist in The Matrix series) is killed in the third film, The Matrix Revolutions. As she did in the second

film, but she gets better.

- The central mystery of the classic film *Citizen Kane* is the meaning of "Rosebud" (the title character's last word), which is revealed at the end of the film to be the name of his childhood sled.
- The title text refers to the film *Fight Club*, at the end of which it is revealed that the character played by Edward Norton is actually Tyler Durden (the name Brad Pitt's character goes by); and Pitt's character is really just a figment of the Norton character's imagination; and that the viewer has been watching from Norton's point of view, seeing Pitt doing things Norton did not want to admit to himself he was capable of. In other words, the two roles are the same character. Near the end of the movie, Edward Norton kills Tyler Durden (his split personality) at the top of a skyscraper.

#110: Clark Gable

June 02, 2006



THE LINE WAS ACTUALLY SUPPOSED
TO BE "FRANKLY, MY DEAR, I COULDN'T
CARE LESS." IT'S JUST THAT
CLARK GABLE HAD TOURETTE'S.

Frankly, my dear, I don't give a BITCH ASS SHIT FUCK DAMN

Explanation

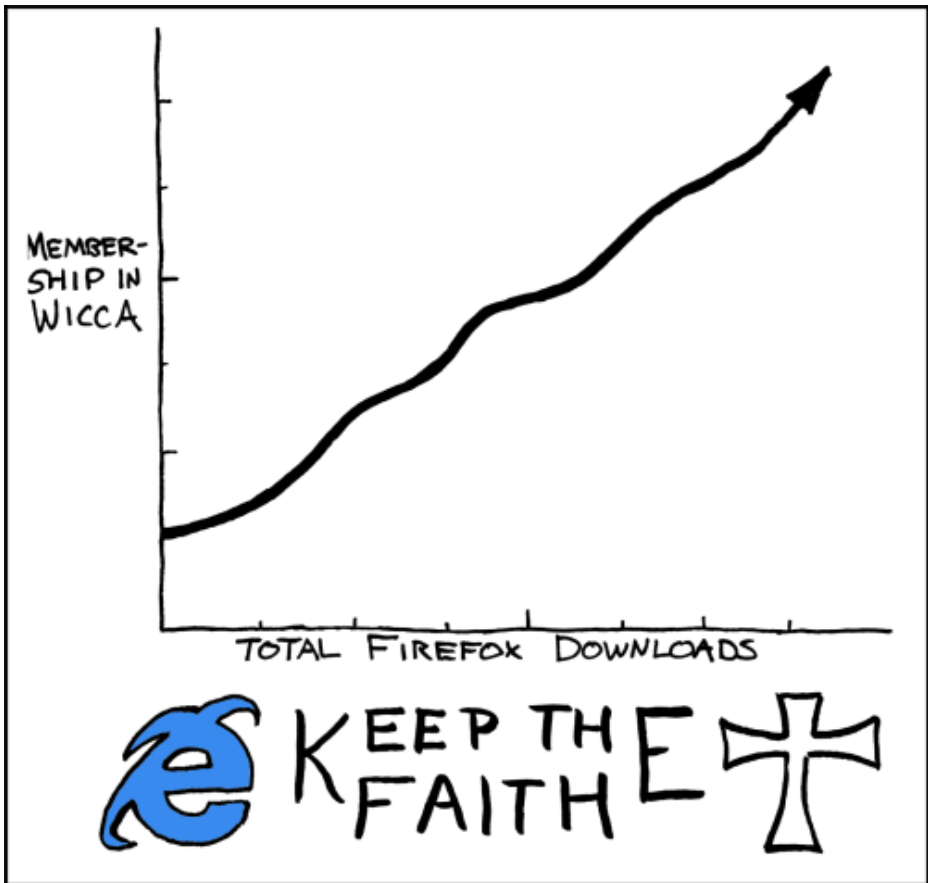
"Frankly, my dear, I don't give a damn" is the signature catchphrase from the 1939 movie *Gone With The Wind*, which starred Clark Gable and Vivien Leigh. The phrase is spoken by Gable's character Rhett Butler as his last line, in answer to Scarlett O'Hara (Leigh) asking "Where shall I go? What shall I do?" The response indicates that Butler is no longer interested in O'Hara. This lack of interest, and the mention of the word "damn," which was considered profanity at the time of releasing the film, led to the line being voted the #1 movie line of all time in 1995's American Film Institute ranking.

Randall suggests that the line as written was not supposed to contain profanity, but the actor, Gable, inserted it, due to having Tourette's Syndrome, which is a neurological condition that is stereotypically characterized by bouts of random, uncontrollable cursing (and repetition of phrases or words).

The title text contains a more stereotypical Tourette's Syndrome outburst of several profanities in a row shouted mid-sentence.

#111: Firefox and Witchcraft - 'The Connection?

June 05, 2006



This ad paid for by the council to promote Microsoft and Christianity. Remember, The Bible is Closed Source.

Explanation

The comic charts the number of members of the religion Wicca against the number of times the Firefox web browser was downloaded, with the implication being that Firefox usage causes involvement in Wicca. In juxtaposing these almost certainly unrelated phenomena, Randall highlights the common error of assuming that correlation implies causation. When two variables exhibit similar trends, this is often taken as proving that one is causing the other. However, such correlation may have come about through pure coincidence, and not indicate any link between the two at all. This is particularly a problem when examining a large number of variables: the chances of finding a coincidental correlation increase exponentially as more variables are added. It may also be the case that a third factor is causally linked to both outcomes. In this case, it is plausible that the increasing ubiquity of internet access has resulted in increased demand for Firefox, and also in greater capacity to share the ideas of Wicca.

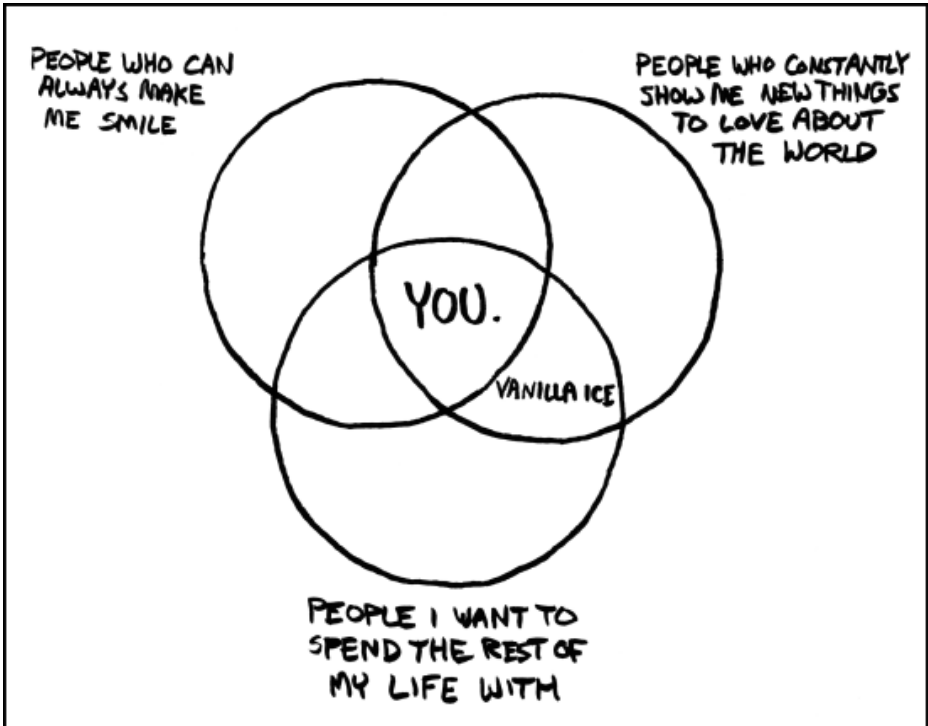
Randall further illustrates one common, and perhaps destructive, use of illusory correlation in the bottom half of the image. The appearance of the symbol for Internet Explorer, a rival web browser, and the cross, representing Christianity, imply that this graph is an attack ad promoted by Microsoft and Christianity to gain an advantage over their competitors.

The title text is reminiscent of political commercials,

which often tell you who paid for them very quickly. This high speed is represented by all the words in the title text being strung together. The last sentence is a play on the term of closed source software, which Internet Explorer is, as opposed to Firefox, which is open source in development. In a similar vein, the Bible can be considered "closed source" due to God's prohibition on altering its contents.

#112: Baring My Heart

June 07, 2006



I'm just trying to explain, please don't be jealous! Man, why are all my relationships ruined by early 90's rappers?

Explanation

Randall presents a logical diagram known as a Venn diagram, which illustrates the relationship between multiple sets. The diagram is usually used to illustrate the overlap between various sets. For example, a Venn diagram of "even numbers" and "numbers divisible by 5" would have 2, 4, 6, 8, 12... in one circle, 5, 15, 25... in another circle, and 10, 20, 30... in the intersection of the circles (as those numbers fit into both sets).

Here we have a three-set diagram that Randall has purportedly created to explain his feelings to his love interest. The three sets are:

In the intersection of these three sets is "you" – his love interest; all three of these statements apply to them. Normally, this might be a cute way of simply implying that he has these three feelings about them, without including any other elements in any of the sets.

Here, however, Randall has included one other element: Vanilla Ice is shown to also constantly show Randall new things to love about the world, and to be someone Randall wants to spend the rest of his life with (although Vanilla Ice doesn't always make him smile).

Vanilla Ice is a white American rapper who was most popular in the early 1990s with his song "Ice Ice Baby." He was frequently mocked as a very "white" rapper. He is obviously an unexpected name to turn up in this

diagram.

Apparently, Randall's love interest didn't take too well to Randall professing similar feelings for Vanilla Ice as he did for them, causing some friction in their relationship. The title text suggests that other '90s rappers have similarly affected Randall's past relationships.

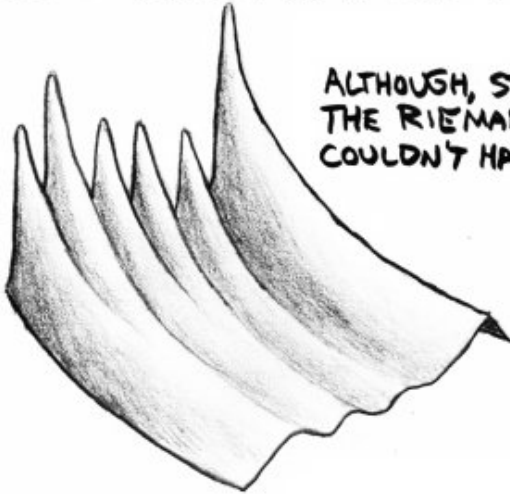
Vanilla Ice also appears as an element of a romantic situation in 159: Boombox.

#113: Riemann-Zeta

June 09, 2006

YOU ARE LIKE THE PRIME NUMBERS
UNPREDICTABLE TURNS, UNCONSTRAINABLE
TANTALIZINGLY REGULAR BUT NEVER QUITE THE SAME

I AM LIKE THE RIEMANN-ZETA FUNCTION
A RIPPLED CURTAIN OF THE IMAGINED AND REAL
DEEPLY TIED WITH YOU IN WAYS INCOMPREHENSIBLE



ALTHOUGH, STRICTLY SPEAKING,
THE RIEMANN-ZETA FUNCTION
COULDN'T HAVE GIVEN YOU HERPES

The graph is of the magnitude of the function with the real value between 0 and 2 and the imaginary between about 35 and 40. I've misplaced the exact parameters I used.

Explanation

A prime number is any natural number with exactly two natural factors (1 and itself). The set of prime numbers is infinite, but they are somewhat elusive; there is no known way to find very large prime numbers except by trial and error. Some regularities in the primes have been found, but none that can fully predict their distribution.

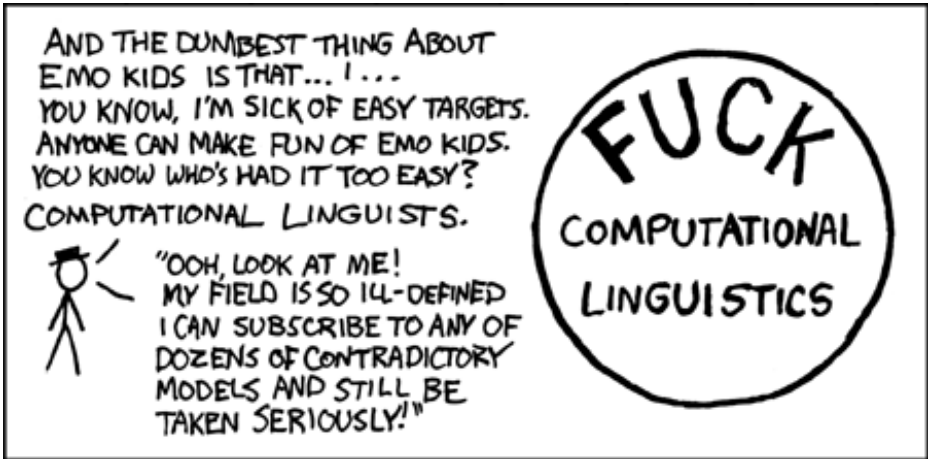
The Riemann zeta function, errantly referred to as the Riemann-zeta function in the comic, is a function that takes in complex numbers and returns complex numbers. It is defined for $\text{Re}(s) > 1$ as $\zeta(s) = \sum_{n=1}^{\infty} \frac{1}{n^s}$. For the rest of its domain (all complex numbers except 1), it is defined with analytic continuation. Its magnitude can be graphed in 3D, producing the "rippled curtain" referenced and depicted in the comic. There is a deep relationship between the Riemann zeta function and prime numbers, which makes the function a useful target of study for those attempting to understand primes.

Here, Randall appears to be talking to his significant other, comparing her to prime numbers and himself to the Riemann zeta function. It is mathematically correct and quite poetic, until he mentions that his relationship differs from the comparison because "The Riemann-zeta function couldn't have given you herpes." This implies that he has infected his lover with an incurable venereal disease. The comic effect of an abrupt change in tone like this is known as bathos.

As the title text indicates, the graph in the picture is of the magnitude of $\zeta(s)$ for some section of the complex plane. Randall has forgotten the exact imaginary bounds of the graph, but he knows that the real axis goes from 0 to 2 and the imaginary axis goes from about $35i$ to about $40i$.

#114: Computational Linguists

June 12, 2006



Chomskyists, generative linguists, and Ryan North, your days are numbered.

Explanation

Black Hat has become bored with attacking Emo kids, a cultural and, particularly, musical phenomenon characterized by introversion and angst. This has become a common target of mockery for its tendency to claim that 'no one understands me,' when in fact such feelings are common amongst teenagers, which is probably why he now feels that they are too easy a target for him.

Instead, Black Hat has chosen to attack computational linguistics, an interdisciplinary field that combines theoretical linguistics, artificial intelligence, statistics, and other areas of study, to attempt to create a rule-based model of language. This has given rise to a number of competing theories, some of which may appear to contradict each other. He may be associating the two groups, suggesting that computational linguists are constantly bemoaning that their 'field is so ill-defined,' and that this has similarities to the emos' refrain above, or he may just be taking a swipe at them by suggesting that they think themselves above normal scientific methods.

Linguistics itself is still a hotly debated subject, as is seen by the various conflicting theories on the origin of languages like the forms of Proto-Indo-European language.

The title text is a reference to some of the people who contributed to language theory:

- Noam Chomsky is an influential American psychologist and linguist who, based on cross-cultural studies, proposed a still-disputed theory that the human brain is unique from that of other species in that it includes a fundamental Language Acquisition Device (LAD) that is pre-programmed with basic rules of grammar and syntax: thus, language is innate to humans.
- Generative linguistics is a term within linguistics that is used in several ways, some of which are contradictory. This may be why it is chosen as a target by Black Hat.
- Ryan North is the author of the webcomic Dinosaur Comics, and has a degree in computational linguistics.

#115: Meerkat

June 14, 2006



Gorilla, yes. Adorable golden retriever, yes. But it says nothing about meerkats.

Explanation

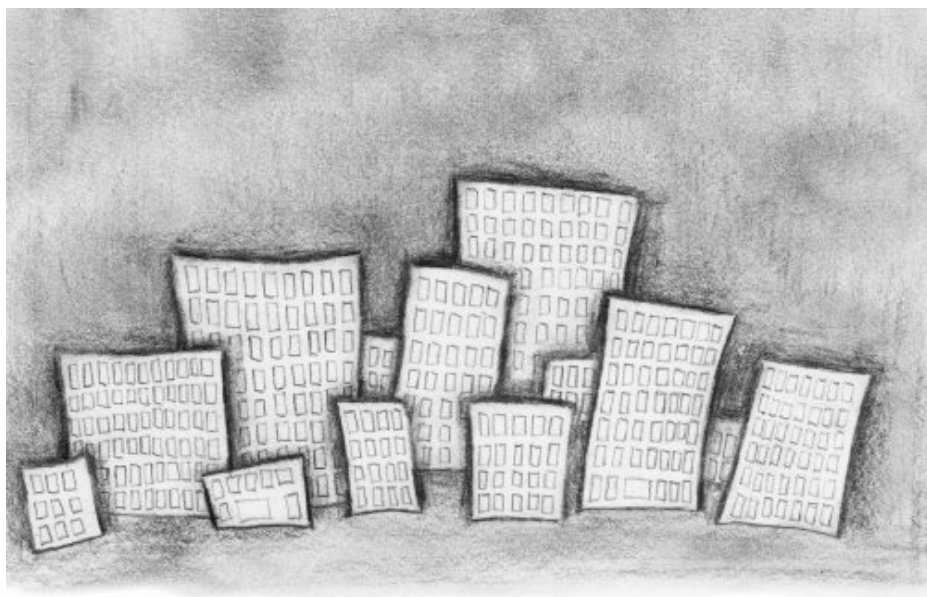
The situation is a reference to the animal athlete loophole trope, where an animal joins an underdog[no pun intended] sports team and saves the day. The other team, which is previously dominant, and usually has an entitled and/or bullying attitude, does not like it, but since there is not a specific rule against it, it has to be allowed.

Randall's combination of animal (Meerkat) and sport (rugby) is particularly unlikely, since meerkats are relatively small, slight animals, whereas rugby is associated with big powerful players, and has not been used in an animal sports movie before.[citation needed]

The title text implies that, as a result of similar instances of animal recruitment in the past, rule changes have been introduced to specifically exclude those animals from taking part, which may be why this team has had to work its way down to meerkats. The governing bodies could probably have avoided this by simply excluding non-human animals.

#116: City

June 16, 2006



SHADOWED CITY SLUMBERS SILENTLY, A SECOND-STORY SUITE
COME CRAVING COURTSHIP, SELECTED SERENDIPITOUSLY
CRAZED COPULATIONS, A SALACIOUS STORM OF CONTINUOUS COITUS.
SPREAD, STRADDLED, CONQUERED
COUNTLESS CRASHED SUITORS STREW'N CARELESSLY.
CENTER, SILKEN SHEETS SENSUOUSLY CARESSING SOFT SKIN,
CONTENTEDLY SLEEPS YOUR MOM.

God, she's such a whore.

Explanation

In non-poetical words, the comic describes the reader's mom, in a bed, having sexual intercourse with other people in a building located within a city.

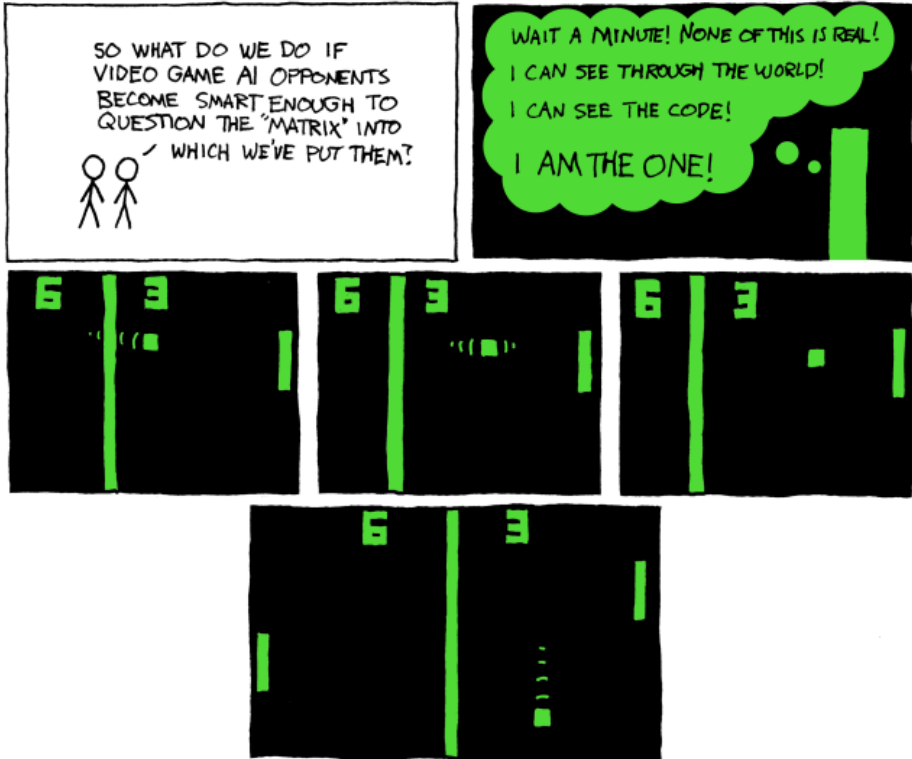
The poem or description alternates between using words that start with C and words that start with S, to achieve an effect resembling alliteration. The gentle, romantic tone of the poem is broken by the last two words, Your Mom. This is an example of a maternal insult joke, and is phrased accordingly.

This is a good example of subversion of expectation. Most of the poem is in a serious or contemplative manner, but it ends in an incongruous, silly, and abrupt punch line. This is similar to 89: Gravitational Mass, 158: Six Months, and 176: Before Sunrise, in that all of them start off seemingly innocuous, but end in the abrupt quotation of "Your Mom".

The title text further emphasizes this, implying that the mother in question is also promiscuous.

#117: Pong

June 19, 2006



Following this, the pong paddle went on a mission to destroy Atari headquarters and, due to a mixup, found himself inside the game The Matrix Reloaded. Boy, was **THAT** ever hard to explain to him.

Explanation

This comic largely refers to the 1999 movie *The Matrix*, which is about escaping a simulated reality. In the movie, a hacker called Neo realizes that the world he lives in is fake, and that, like every other human, he is used as a slave battery by machines that, to keep them under control, make them feel like they're "living" in what is a computer-generated simulation of the world, called the "Matrix." Upon discovery, Neo rebels against this misuse of mankind and trains himself to interact with the computers that run the world until, being "the One" mentioned by a prophecy, he can control and use them to his advantage. He takes part in a series of missions against those machines that wanted to keep the humans trapped in a simulated environment.

In Pong, one of the earliest video games, one can play virtual table tennis against the computer. A ball (the tiny block) is "hit" by a paddle (the long block) and crosses over the screen, to be "hit" again by the other paddle. Failure to return the ball results in a point won by the opponent. The speed of the ball increases as the rally runs longer.

The two-game programmers in the first frame apply Neo's story to the AI bots they create to serve as computer players in their video games: What if one of them learns enough to become sentient and understands the environment the programmers trapped it in? The outcome is shown: The paddle bot, understanding the

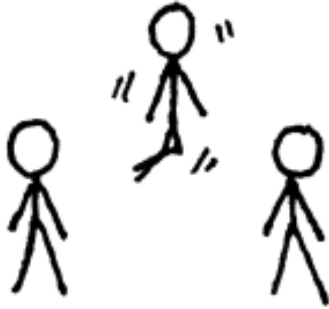
game and realizing it is "the One," takes control of the code of Pong to make the ball stop and drop. The same thing happens in the movie, where Neo, by "seeing through the code," can stop bullets fired at him, and simply let them drop on the floor.

This is also possibly, though not likely, a pun on the meaning of the term "the One," as the long thin paddle looks very similar to how the numeral "1" could be written in several fonts.

In the title text, we learn that after increasing in intelligence, the "paddle" went on to destroy the headquarters of Atari, the producer of Pong, which "trapped" the paddle into the game, much like Neo sought to destroy the machines to free the humans. In the process, the paddle ended up inside the game Enter the Matrix (a video game produced with The Matrix Reloaded, a sequel to The Matrix), also published by Atari. Since the whole premise of The Matrix is that everyone is trapped in a virtual reality, the paddle now finds itself in a meta-virtual reality, which could be pretty hard to comprehend.

#118: 50 Ways

June 21, 2006



YOU GOTTA LET GO, JOE
JUST RISE OFF YOUR FEET, PETE
JUST STAY IN THE AIR, CLAIRE
GOTTA LEVITATE, KATE
THERE MUST BE 50 WAYS
TO LEARN TO HOVER.

I woke up to find that I had scrawled the last line of this sleepily on a sheet of paper on my desk. I shouldn't have listened to the 70's hit marathon on the way home from work the night before.

Explanation

The comic provides alternate lyrics to the chorus of the 1975 song "50 Ways to Leave Your Lover" (Video) by American artist Paul Simon. Both the original and alternate lyrics provide a textual hook because the name at the end of the line is rhymed with the word before it (back/Jack, plan/Stan, go/Joe).

Randall, we learn from the title text, heard Simon's song during a '70s hit marathon, went to sleep, and while being sleepy replaced "lover" by "hover" while writing the last line of the song's chorus. Thus changing this line from to leave your lover into to learn to hover. Clearly, this amused him so much that he decided to create a comic where people learn how to hover, rather than leave their lover.

#119: Worst Band Name Ever

June 23, 2006

IT'S PROBABLY A GOOD THING THAT
I NEVER GET TO PICK BAND NAMES.



You can just see his dejection as he realizes he's the lead guitar in 'Hedgeclipper'

Explanation

A hedge clipper or hedge trimmer is a gardening tool for trimming hedges or bushes. The implication is that motor driven hedge trimmers produce a bad, loud sound; maybe the sound of the band is even worse. Additionally, each member of the band has a haircut that resembles a trimmed hedge.

The title text suggests that they (or at least the lead guitarist) previously did not know their band's name. As he bemoans his apparent inability to choose a good band name, he probably sees the name 'Hedgeclipper' as the reason why the band has no audience.

#120: Dating Service

June 26, 2006



I don't understand why people are so disingenuous! I just want someone to walk with!

Explanation

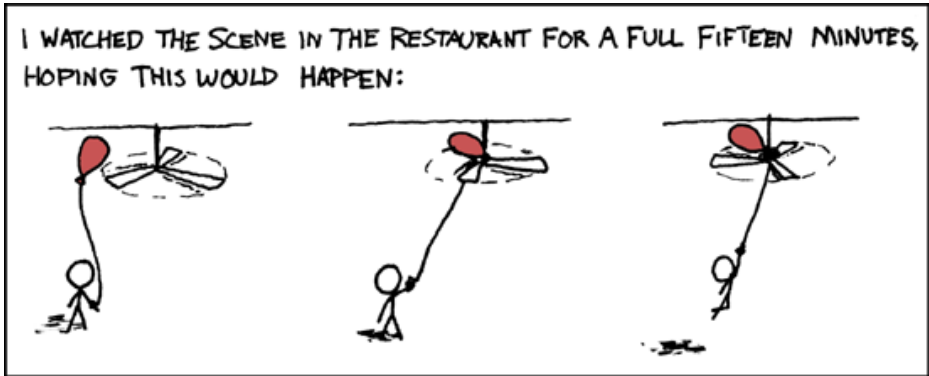
Enjoying "long walks on the beach" is a romantic activity stereotypically associated with dating; specifically, it is commonly listed as an interest in dating advertisements and, more recently, online dating profiles. It is among other romantic clichés like "candle-lit dinners" and may, in fact, simply indicate that the person enjoys romantic gestures and activities in general. It is likely that many people who list this in their profiles have never, in fact, taken a walk on a beach or may not live near enough to a beach for it to be a viable suggestion for a date.

In this comic, Randall lists "long walks on the beach" as an interest on a dating profile. However, while a romantic walk might last for half an hour or an hour before, presumably, moving on towards another activity, Randall suggests he likes walks that last several hours or even overnight, suggesting potential mates bring a tent to camp out in.

The title text suggests that those who say they like long walks on the beach are being disingenuous, or not forthcoming. He just wants someone who wants what he does; to walk an indefinite, indeterminate distance well beyond the comfort and expectations of everyone else.

#121: Balloon

June 28, 2006



So I'm a bad person.

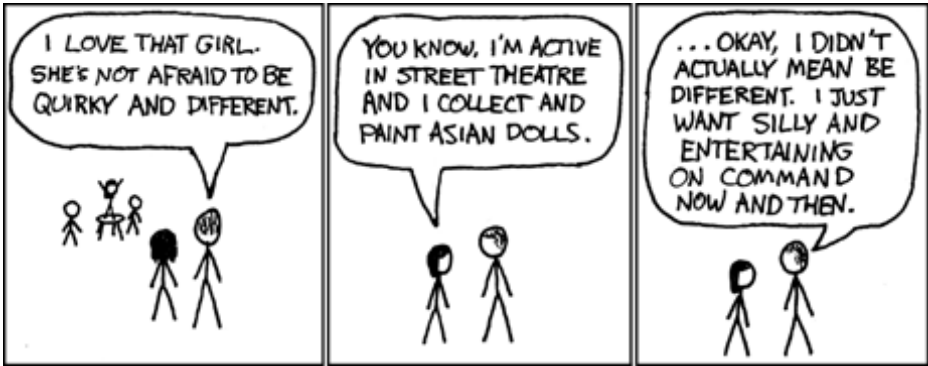
Explanation

An unidentified narrator, probably Randall, says how he saw a kid with a balloon stand next to a ceiling fan in a restaurant. He explains how for fifteen minutes, he watched the kid's balloon, hoping the balloon would get caught in the ceiling fan and, as its cord became wound up, drag the kid up towards it. This looks like it could cause serious injury to the child and/or damage to the venue. The title text concludes that the narrator is now considering himself a bad person for hoping for this to happen. This might be a poke to people who think that waiting for a disaster to happen makes you a bad person like in 611: Disaster Voyeurism.

It is unlikely that the strength of the balloon rope and of the ceiling fan would be enough to lift the child.

#122: Quirky Girls

June 30, 2006



Romantic comedy heroines, I'm talking to you.

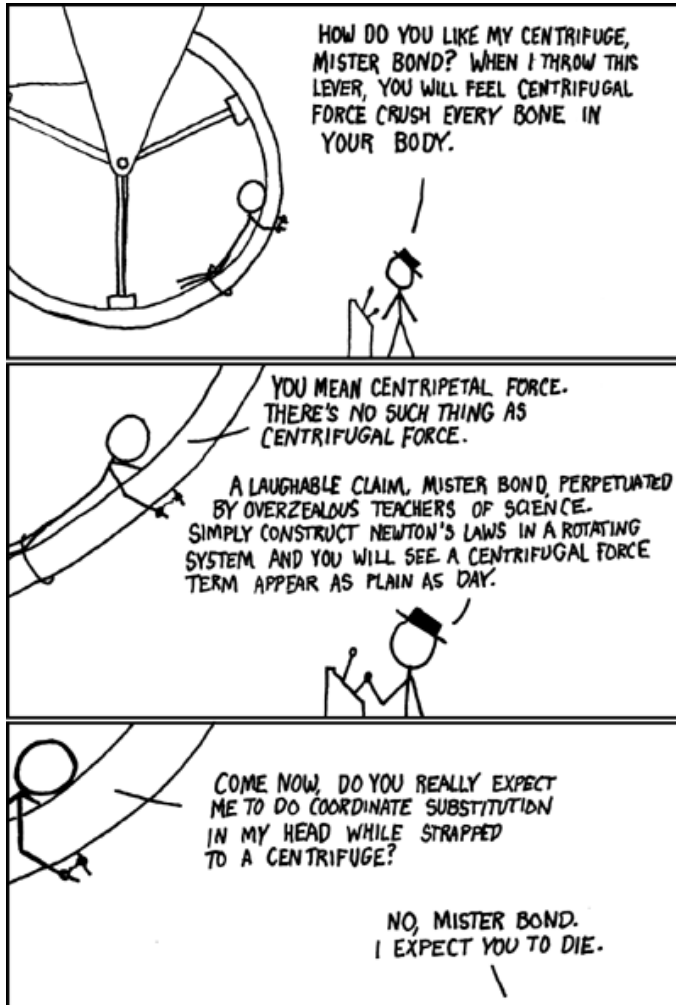
Explanation

This is a fairly classic play on what people say they want isn't always what they mean they want. As per the comic, this is particularly true when it comes to the generalization of wanting someone "different." When Megan opens up to the other character and says how she is "different," she is met with a stereotypical, but more accurate, response of his definition of "different."

The title text refers to characters in the famously clichéd plot lines of romantic comedies where often the male lead is "uptight" and the female lead is "quirky," and the course of the plot involves the male lead learning to loosen up in order to properly fall in love with the female lead (the same set-up with the genders reversed is also common). Since these movies tend to follow very strict conventions, the definitions of "uptight" (has an office job, is afraid of confronting his boss, timid in public venues, etc.) and "quirky" (abnormally friendly with strangers, loves art, isn't afraid to make a spectacle of herself for fun, etc.) are just as limited and stereotyped as any other characters. This mirrors Megan's frustration that "acceptably quirky" is so narrowly defined.

#123: Centrifugal Force

July 03, 2006



You spin me right round, baby, right round, in a manner depriving me of an inertial reference frame. Baby.

Explanation

Black Hat has strapped James Bond to a centrifuge and claims that the centrifugal force will be lethal. Bond objects that there is no such thing, but just centripetal force. The notion of centrifugal force is a common one, as we experience it whenever we turn. Teachers will initially teach Newtonian mechanics in an inertial frame, and in inertial frames, the centrifugal force is zero. Instead, a body that moves in a circle does so because of a centripetal force (acting towards the center of the rotation). This is a reasonable (and correct) view, but it is a subtle point that many students find hard to grasp, as it seems to contradict their personal experience of centrifugal forces. For the sake of exposition, teachers may claim that "There is no such thing as centrifugal force." This, however, is also a misconception, which is addressed in the explanation below:

As mentioned in the explanation, as the centrifuge rotates faster, the forces needed to keep him in motion get larger, so the force he feels gets larger. This will eventually kill him. The conclusion will be the same regardless of which frame of reference is chosen.

Teachers of mechanics are well aware of this; however, in introductory expositions, these ideas are often not taught. In theoretical mechanics, one describes the positions and velocities of the particles in a model relative to a frame of reference. This means that a time is chosen to be time 0, and positions are chosen to be $(0,0,0)$,

(1,0,0), (0,1,0), and (0,0,1). With these chosen, the position and time of any particle in the system can be described. It is an axiom of Newtonian Mechanics that there exist "Inertial Frames." In an inertial frame, a particle will remain at rest or at a constant speed unless acted on by an external force, and Newton's second law takes a simple form: $F = ma$. The surface of the Earth approximates an inertial frame. In a non-inertial frame, such as one rotating with a giant centrifuge, or moving with an accelerating vehicle, a particle will accelerate, relative to the frame. Newton's second law, when formed in such a frame, is much more complicated, as it has terms for the linear acceleration of the frame, the angular acceleration of the frame, the centrifugal force, and the Coriolis force. These extra terms are sometimes called "fictitious forces," as they result from the choice of the frame of reference. The mathematics required to describe problems in a non-inertial frame is more sophisticated, and all problems may be solved using an inertial frame. Thus is reasonable that teachers at school level "lie to children" and teach the mechanics in inertial frames.

James Bond was almost killed by a centrifuge in Moonraker. The final statement by Black Hat is that said by Auric Goldfinger in Goldfinger in response to James Bond's question "Do you expect me to talk?"

The title text is inspired by Dead or Alive's famous song from 1985, "You Spin Me Round."

Randall feels very strongly that the centrifugal force is a real thing. He links to this comic in the first footnote of

his what if? article One-Second Day and the 6th footnote of Earth-Moon Fire Pole, stating that it is a real thing, and that he will go so far as to strap arguers to a centrifuge that he or someone he knows apparently owns. He also cites it in 852: Local g

As can also be seen in the footnote on page 132 in his What If? book, he will even fight you about it. From the book:

"Furthermore, if you're on the equator, you're being flung outward by a centrifugal force¹."

"¹Yes, centrifugal. I will fight you."

(The article itself is about what happens if you lose all your DNA, so it has not much to do with this "real" force... The sentence is just stating that the actual weight loss from losing all your DNA is similar to the weight loss you would experience by moving from the poles to the equator due to this force.)

Black Hat is featured as a Bond villain once again in 2747: Presents for Biologists.

#124: Blogofractal

July 05, 2006

FROM THE MAKERS OF THE BLOGOSPHERE,
BLOGOCUBE, AND BLOGODROME COMES

the Blogofractal



Edward Tufte's 'The Visual Display of Quantitative Information' is a fantastic book, and should be required reading for anyone in either the sciences or graphic design.

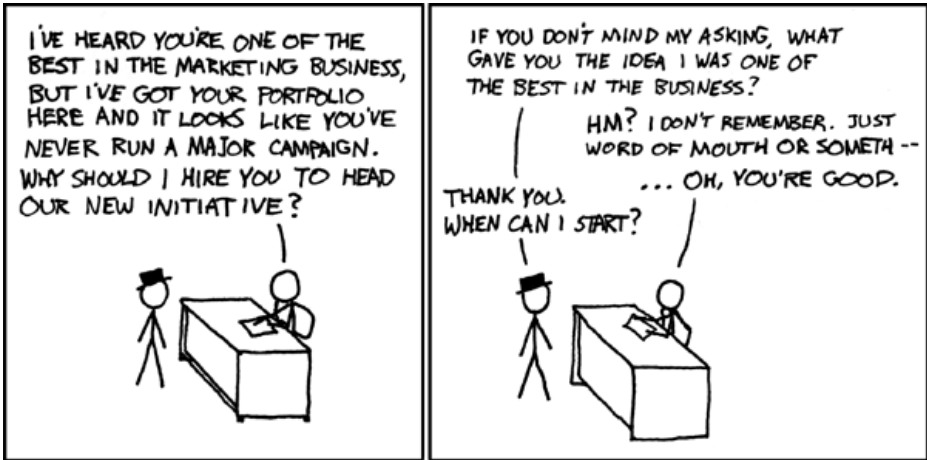
Explanation

The Blogosphere is a blanket term for all the blogs on the internet that link together and share information to the extent that the term "blogosphere" arose to describe the collective of blogs. This comic proposes a new structure for defining all blogs by a fractal of blogs.

Edward Tufte is a statistician who worked on data visualization and wrote books on the subject, including "The Visual Display of Quantitative Information," as mentioned in the title text.

#125: Marketing Interview

July 07, 2006



There are a lot of books on marketing out there. I wonder if you're safest just buying the most popular one.

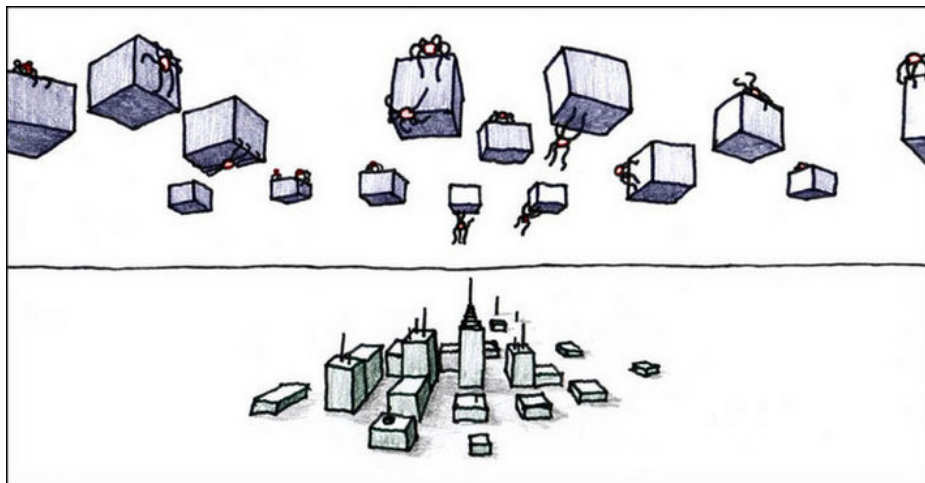
Explanation

Black Hat is trying to get a job running a marketing program. Cueball conducts the interview and says that although he has heard that Black Hat is the best in the business, his portfolio does not show that he has run any major marketing campaigns. Black Hat asks where he heard that rumor and Cueball begins to respond with "word of mouth." This makes him realize that Black Hat's marketing skills are so strong that he built a reputation for himself without ever running a major campaign. Then, Black Hat tries to skip ahead of the interview process and coyly asks, before being offered the job, when he can start working.

A book that becomes the most popular in its field is the one with the best marketing, not necessarily the one with the best content. The title text suggests that in this case, where the subject matter is marketing, the most popular book would in fact be written by those with the best marketing skills, and would therefore contain the best content. However, this fails to realize that the publishers of the book would only be good at marketing themselves, but not necessarily at teaching marketing. Furthermore, it could be that the people authoring those marketing books are incentivized to sell bad advice, since less competition in the field means more opportunities for themselves.

#126: Red Spiders Cometh

July 10, 2006



Uh-oh.

Explanation

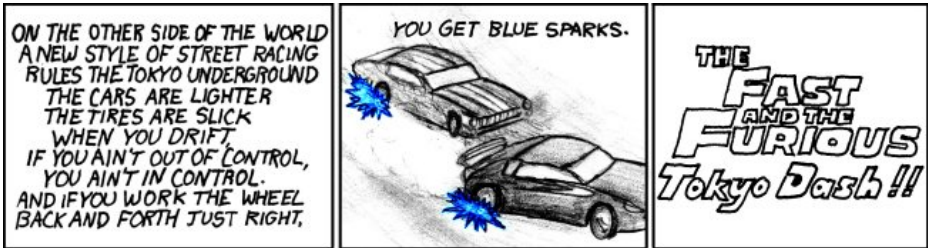
The fourth in the series of sketches involving red spiders, the titular spiders are overlooking a small city. The title text implies that things won't end well, and possibly that the counter-offensive from the previous comic in the series had failed.

The full series of Red Spiders comics:

- 8: Red Spiders, the first one.
- 43: Red Spiders 2, in which the spiders begin building.
- 47: Counter-Red Spiders, in which the humans begin a counter-offensive.
- 126: Red Spiders Cometh, this one.
- 427: Bad Timing, in which, in a style more typical to xkcd, the spiders attack a couple in the middle of a serious relationship discussion in a hot-air balloon.
- 442: xkcd Loves the Discovery Channel, in which it appears briefly in the 14th panel crawling over a cube.

#127: The Fast and the Furious

July 12, 2006



Sometimes when I steer shopping carts around corners, I slide them a little and pretend I'm getting the blue spark boost.

Explanation

This comic shows an imagined crossover between the film *The Fast and the Furious: Tokyo Drift* and video game series *Mario Kart*, specifically the entry *Mario Kart: Double Dash!!*

In *Tokyo Drift*, the protagonist is trying to break into the underground street racing ring, and finds that the urban environment of Tokyo is far different than the rural American roads he is used to. The Asian street racers soundly beat him until he is able to master drifting. (Lines 4 to 8 of the first panel are from the *Tokyo Drift* trailer.)

In *Mario Kart*, drifting is a gameplay mechanic. During a proper drift, the kart creates blue sparks, which give a small, temporary "mini-boost" to the speed of the kart.

In the title text, Randall jokes about comparing a shopping cart to karts from *Mario Kart* by imagining blue sparks forming whenever he drifts the cart.

#128: dPain over dt

July 14, 2006

WILL IT EVER STOP HURTING?

$$\frac{d\text{Pain}}{dt} = \left(-k_1 \text{Pain} + \text{stick figure} \right) \left(\frac{1}{1 + e^{-(t - k_2)/d}} \right)$$

$k_1 = ?$ $k_2 = ?$ stick figure = How much she's still in my life

PLEASE LET d ONLY BE A FEW DAYS
... OR WEEKS.

I GUESS THERE'S SOME KIND OF A
CUTOFF AFTER YEARS, WHERE IT STOPS
MATTERING AND WE CAN BE FRIENDS.
DO I WANT THAT?

IS k_1 POSITIVE? IS k_2 LARGE?

WILL I EVER STOP FEELING LIKE THIS?

You laugh to keep from crying, you do math to keep from crying...

Explanation

Another one of the math-love relationship comics, a mathematical depiction of pain as a differential equation is shown. It is hoped that $d\text{Pain}/dt$, or the rate of pain (in this case, shrinking), decreases quickly so that the pain will vanish quickly. He's hoping the value for d will not be larger than a few days or some weeks. Assuming that How much she's still in my life is a constant [Megan], solving the differential equation leads to the following solution (with unknown c_1):

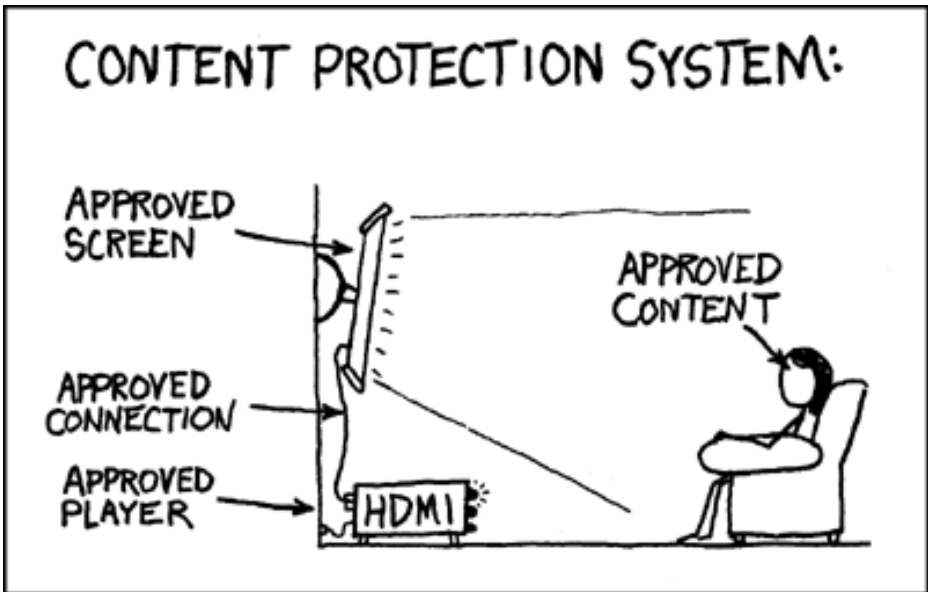
Note: In reality, "Megan" is not likely to be a constant.

If k_1 was positive or if k_2 was a large value, the value of $d\text{Pain}/dt$ would approach zero. Ideally, k_1 would be "How much she's in my life"/Pain (we assume both these values are positive), while k_2 would ideally be extremely large. Either of these scenarios approach what would be a situation where the value of $d\text{Pain}/dt$ is close to zero. But we don't know the meaning of k_1 or k_2 ; these variables are just unpredictable.

In the title text, Randall changes the famous "laugh to keep from crying" statement to math.

#129: Content Protection

July 17, 2006



If you think the purveyors of **DRM** simply want to protect artists, check out chapters **13** and **14** in **Free Culture**, by Lawrence Lessig. Their goal is the elimination of all culture they don't control.

Explanation

This comic is a commentary on HDCP, a media standard that requires all the devices from player to cable to display to be "approved" to carry HDCP content. HDCP is intended to protect media encrypted with DRM from being intercepted between the player and the display. Interestingly, however, it is literally impossible for DRM advocates to completely prevent copying (even with such drastic measures) because of the analog hole: since the content must be shown in a human-perceptible form, it can be captured by analog means, such as recording the display with a video camera.

In addition to illustrating the absurdity of HDCP, the comic presents the darker idea that when your devices control what information you are exposed to, the controlling companies can act as "thought police" and ensure that your mind only contains "approved content."

With the title text, Randall is referring again to DRM. The Free Culture movement (Lawrence Lessig being one of their activists) is fighting for free content. DRM advocates claim that their technology "protects" artists by preventing piracy, while in reality, DRM is more effective as a means of giving media companies control over devices than it is at preventing piracy.

Chapters 13 and 14 of the Free Culture book by Lawrence Lessig concern *Eldred v. Ashcroft*, 537 U.S. 186 (2003), a decision by the Supreme Court of the

United States upholding the constitutionality of the 1998 Sonny Bono Copyright Term Extension Act (CTEA). The practical result of this was to prevent a number of works from entering the public domain in 1998 and following years, as would have occurred under the Copyright Act of 1976. Lessig was a lead council in this case. In his opinion he lost the case because his arguments were about culture instead of the economy.

The structure of current law makes it exceedingly difficult for someone who might want to do something with an old work to find the copyright owner, because no central list exists. Because these old works no longer seem commercially viable to the copyright holder, many are deteriorating.

In chapter 14 Lessig uses the disproportionate number of HIV and AIDS victims in Africa and other poor countries to further his argument that the current control of intellectual property—in this case, patents to HIV drugs—defy "common sense."

#130: Julia Stiles

July 19, 2006

THE BEST THING EVER TO APPEAR ON TV:
12-YEAR-OLD JULIA STILES AS A HACKER
IN A 1993 EPISODE OF PBS'S "GHOSTWRITER"



DO YOU KNOW ANYTHING
ABOUT HACKERS?

CAN YOU JAM WITH THE CONSOLE
COWBOYS IN CYBERSPACE?

NEVER EXPERIENCED THE
NEW WAVE? NEXT WAVE?
DREAM WAVE? **OR**
CYBERPUNK?

I found an old tape of this episode in my family's closet.
Check the news section of the forums to see the clip!

Explanation

Julia Stiles, who later became a well-known actress as an older teenager and adult, did in fact appear in the children's television show *Ghostwriter* as a 12-year-old in 1993. The sketch in this comic depicts Stiles as she appeared in the episode, and all the dialogue attributed to her is taken from her character's actual dialogue.

Although this dialogue was supposed to establish Erica (Stiles' character) as an expert on hacking, it actually consists mostly of buzzwords (some of which are fake), none of which would impress an actual computer hacker. The term "console cowboys" is stated to be a reference to the book *Neuromancer* in the full scene.

The thread in the news section of the forums, as referenced in the title text, could originally be found [here](#). However, as the forums went offline in 2019, the link is no longer available. A copy of the video with better audio can be found [here](#).

#131: Fans

July 21, 2006

BEST THING ABOUT HAVING
MY OWN APARTMENT:

HOLDING FANS IN PLACE SO THEY TWITCH
HELPLESSLY AND MAKE THAT CLICKING SOUND
WITHOUT MY MOM YELLING AT ME.



It's not going to break the fan, bouncing a rubber ball off the wall isn't going to dent it, and the roof can hold me just fine. You **LIED!**

Explanation

This comic is probably best understood by someone with young kids who explore everything in their household, and the fear that the kids will damage something expensive. Some parents issue harsh warnings to their children when they so much as touch an expensive item, which can be frustrating to children who feel that they don't have the freedom to explore.

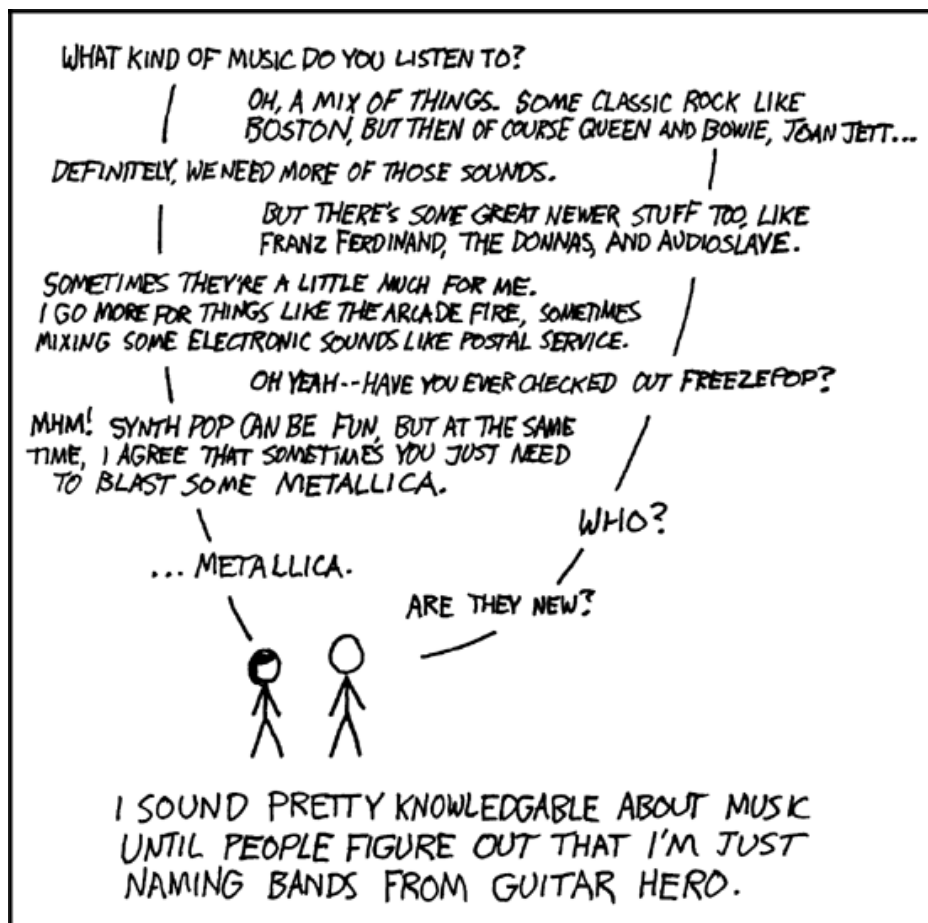
In the comic, Cueball lets go of these frustrations as he finally owns his own place. He buys an oscillating fan and grabs its head, locking the mechanism that rotates it. As it attempts to turn, a release stub on the motor clicks to alleviate pressure and prevent damage to the fan. Cueball enjoys the clicking sound that the fan makes, without having to worry about his mother stopping him.

This shares a theme with 357: Flies.

The title text gives more falsehoods that his mother told him: that bouncing a ball against a wall will dent the wall, or that the roof is too weak to hold his weight.

#132: Music Knowledge

July 24, 2006



When Guitar Hero 2 comes out I'll have fresh conversational material for MONTHS.

Explanation

The punchline of this comic is that just by naming bands from the game Guitar Hero, you can sound pretty knowledgeable about music without actually knowing anything about the bands you are naming. This is further emphasized when Megan mentions Metallica, a very famous band that mostly everyone can be assumed to have heard of, and Cueball has no clue who they are, because Metallica is not featured in Guitar Hero (at the time of this comic writing). A similar premise was demonstrated in 1859: Sports Knowledge.

Guitar Hero is a music rhythm video game developed by Harmonix and published by RedOctane for the Playstation 2.

In the title text, Cueball (or possibly Randall) is just hoping for a sequel to Guitar Hero to get more, and newer, conversational material. By 2015, there had been 6 main sequels to Guitar Hero, with numerous other spinoffs and expansions to the Guitar Hero series.

List of bands mentioned[edit]

Classic Rock

- Boston is an American rock band from Boston, who had their most success in the 1970s and 1980s. Their song "More Than a Feeling" is featured in Guitar Hero.
- Queen is a British rock band from London, formed in 1970, with many major hits. Their song "Killer Queen" is featured in

Guitar Hero.

- "Bowie" (David Bowie) was an English singer and songwriter. His song "Ziggy Stardust" is featured in Guitar Hero.
- Joan Jett is an American rock singer. She is best known for her work as the frontwoman of her band, Joan Jett & the Blackhearts. Their version of the song "I Love Rock 'n' Roll" is featured in Guitar Hero.

Newer stuff

- Franz Ferdinand are a Scottish rock band formed in Glasgow in 2002. Their song "Take Me Out" is featured in Guitar Hero.
- The Donnas were an American rock band formed in Palo Alto, California in 1993. Their song "Take it Off" is featured in Guitar Hero.
- Audioslave was an American rock supergroup formed in Los Angeles in 2001. Their song "Cochise" is featured in Guitar Hero.

Other stuff

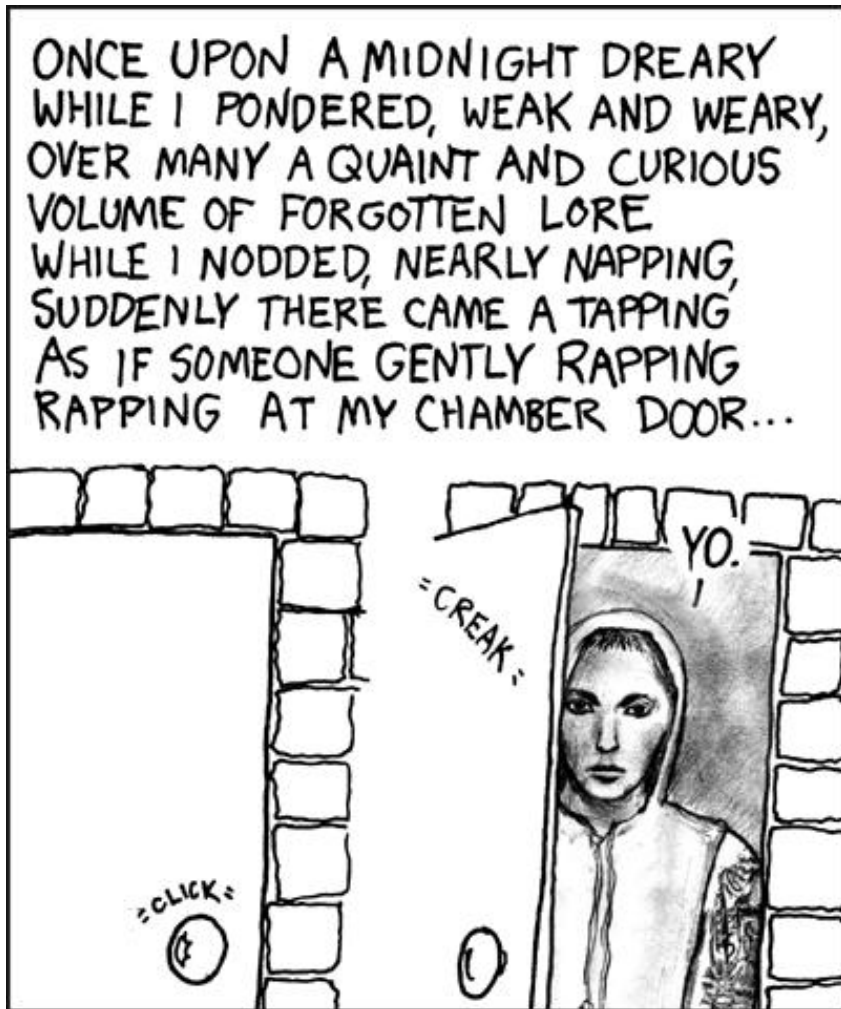
- Arcade Fire is a Canadian indie rock band founded in 2000.
- Postal Service was an American indie rock band founded in 2001.
- Freezepop is an American electronic band from Boston. Their song "Get Ready 2 Rokk" is featured in Guitar Hero, as a bonus song. This is the first giveaway of Cueball's source for his music knowledge; Freezepop is a fairly obscure indie band best known for their placement in Guitar Hero and other rhythm games.
- Metallica is an American heavy metal band. The band was

formed in 1981 in Los Angeles, California. Metallica has won 9 Grammy awards and received 23 Grammy nominations. They were inducted into the Rock and Roll Hall of Fame in 2009.

Interestingly, neither Arcade Fire nor Postal Service (mentioned by Megan) are featured in Guitar Hero, so Cueball should not have any knowledge of these bands. Perhaps he brought up Freezepop as a distraction, since Megan mentioned that The Postal Service also has electronic music.

#133: The Raven

July 26, 2006



Yes, Eminem is wearing a sleeveless hoodie. What of it?

Explanation

The comic's title is a reference to the well-known poem *The Raven* by Edgar Allan Poe, one of the most popular pieces of poetry in the English language. The comic quotes the first four lines of the work, in which the poetic persona perceives a strange knocking on his door in the middle of the night. Unlike the original, the comic reveals the nocturnal visitor to be the rapper Eminem.

This unexpected turn reflects the ambiguity of the verb "to rap" in English. According to the Merriam-Webster Dictionary, the word was used in the original sense of "to strike" as early as the 14th century. The meaning of the word was later extended to "talking freely and frankly." In this purport, it was especially employed by the Black rights movement during the 1960s (cp. for example the nom de guerre of H. Rap Brown). The hip-hop subculture, which had its roots in the aforementioned movement, finally adopted the term in the sense of "rhythmic speaking or chanting." Today, the word is almost exclusively used with the latter meaning.

It is thus implied that the poetic persona in the comic hears Eminem performing a rap song, rather than someone knocking on the door as in the original. Note also that rap music is usually considered fairly aggressive, which seems to contradict the poem's description of a "gentle" sound.

Beyond a linguistic interpretation of the comic, it may be

added that rap music and poetry bear a lot of similarities: Some of the more advanced rap lyrics feature classical stylistic devices like alliterations or inline rhymes as well as a more or less complex metrical structure. The metre of a classical poem, on the other hand, gives the piece a distinct, almost musical rhythm, albeit it is not accompanied by any instruments. Nerdcore rapper MC Lars has recorded a rap version of the poem (with some additional lyrics and modern references added) called 'Mr. Raven,' which can be heard here. (For a comparison between the verbal capabilities of Edgar Allan Poe and Eminem, see this article.)

"The Raven" is heavily referenced in popular culture. Interestingly enough, the webcomic Dinosaur Comics had a reference to Edgar Allan Poe three weeks before the xkcd comic was published. There is also a Penny Arcade version of the "Raven" trope.

The title text, besides defending the graphic style of the drawing, also lampshades at the somewhat peculiar taste of fashion found in the hip-hop subculture. In the picture, Eminem wears a sleeveless hoodie. While the aesthetic value of such garment might be disputed, it certainly defeats the purpose of keeping its bearer warm.

#134: Myspace

July 28, 2006

OH MAN, YOU AND EVERYONE
IN EARSHOT ARE GONNA LOVE
THE FIRST FIVE SECONDS
OF THIS SONG!



It's like they got together and said 'what do we miss most from the internet in 1998? that's right, embedded MIDI!'

Explanation

This comic references a common issue that users would experience in the late 2000s on the now outdated website MySpace. At the time, an individual with a profile on that website would be able to choose a song that would automatically play when anyone accessed said profile. This was a heavily promoted feature in which the majority of users would partake. The song would interrupt whatever else the user was doing, such as listening to music, watching a video, or simply browsing in silence.

For further context, MySpace at the time did not have a universal "news feed" to browse, so users would perform most of their interaction with other users by actively going to their profiles. Thus, the auto-playing music became a compounding problem, as the user could experience it several times per browsing session.

The "first five seconds" refers to approximately how long it would take a typical user to pause the music. Fewer keyboards at the time would have had volume control keys, and web browsers did not support media keys (such as a play/pause key) until a decade later. As a result, many users would have needed to find an on-screen pause button and aim the mouse pointer at it.

Future social networks would eschew features like this, as they are perceived by the user base to be annoying and distracting. However, the issue in some ways persists, as

sites like Facebook now auto-play sound on videos and advertisements (unless the user opts out).

The title text refers to the fact that old pages, back in the late 1990s, used embedded MIDI files, which would not only play automatically, but also have no way to stop playing. The viewer would have to leave the website or externally mute the audio. Additionally, some Macintosh computers at the time had a bug that would automatically play MIDI files at the maximum computer volume, making them an incredible nuisance. MIDI files do not contain actual audio, but instead contain instructions for which notes to play on which musical instruments, and upon playback, these instructions would render sound from a library of MIDI audio samples installed in the computer's operating system — audio samples that were often artificially synthesized and of poor quality, producing music reminiscent of early video games; this may have made these web pages with embedded MIDI even more annoying. (In fairness, it should be noted that high-quality MIDI audio samples are also available, often recorded from actual musical instruments, and capable of reproducing realistic music.)

#135: Substitute

July 31, 2006


MISS LENHART COULDN'T BE HERE TODAY, SO SHE ASKED ME TO SUBSTITUTE.

MATH

Mr. MUNROE

I'VE PUT OUT YOUR TESTS. PLEASE GET STARTED.

MR. MUNROE, MISS LENHART NEVER TAUGHT US THIS.




THAT'S BECAUSE MISS LENHART DOESN'T UNDERSTAND HOW IMPORTANT CERTAIN KINDS OF MATH ARE.

BUT THIS JUST LOOKS --

THIS MATERIAL IS MORE VITAL THAN ANYTHING YOU'VE EVER LEARNED

BUT --


NO BUTS.



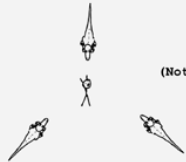
THIS IS A MATTER OF LIFE AND DEATH.

Name: _____

1. The velociraptor spots you 40 meters away and attacks, accelerating at 4 m/s^2 up to its top speed of 25 m/s . When it spots you, you begin to flee, quickly reaching your top speed of 6 m/s . How far can you get before you're caught and devoured?



2. You are at the center of a 20m equilateral triangle with a raptor at each corner. The top raptor has a wounded leg and is limited to a top speed of 10 m/s .



(Not to scale)

The raptors will run toward you. At what angle should you run to maximize the time you stay alive?

3. Raptors can open doors, but they are slowed by them. Using the floor plan on the next page, plot a route through the building, assuming raptors take 5 minutes to open the first door and halve the time for each subsequent door. Remember, raptors run at 10 m/s and they do not know fear.

YOU THINK THIS IS FUNNY?

Explanation

This comic refers to the film Jurassic Park, a 1993 movie based on the 1990 novel by Michael Crichton. The film centers around a billionaire who bought an island and opened a zoo or theme park for dinosaurs that he has cloned from DNA recovered from blood found in fossilized mosquitoes. After a computer programmer shuts down the security systems to steal embryos for a rival company, several of the creatures, among which are the Velociraptors subject of this comic, run loose and try to devour every human in the theme park.

Velociraptors (often shortened to "raptors") are a species of relatively small, carnivorous dinosaur that play a central role in the original film, as well as its sequels. In the film, packs of Velociraptors antagonize the main characters at various points, even entering buildings. According to newer researches, the Velociraptors in the film were erroneously based on the Utahraptor species of dinosaur. Unlike the movie, in which they are depicted as having a reptilian skin, both species of dinosaur in reality are theorized to have been feathered. The word "raptor" also refers to modern birds of prey.

Randall is asked to substitute for Miss Lenhart in math class. The first page of the test he devises contains three questions, which have the recurring theme of humans running from said velociraptors. For the answers, see below. As Randall says in the comic: "This material is more vital than anything you've ever learned," the joke

being that Randall is somehow fearful that such a thing could happen. Velociraptors, and in particular, the irrational fear of being attacked by them in the modern world, appear several times in xkcd. This is the second such instance; the first is 87: Velociraptors.

Answers to the first two questions used to be found on the forum board, until it was shut down. The link is now defunct, but there's an archived version:

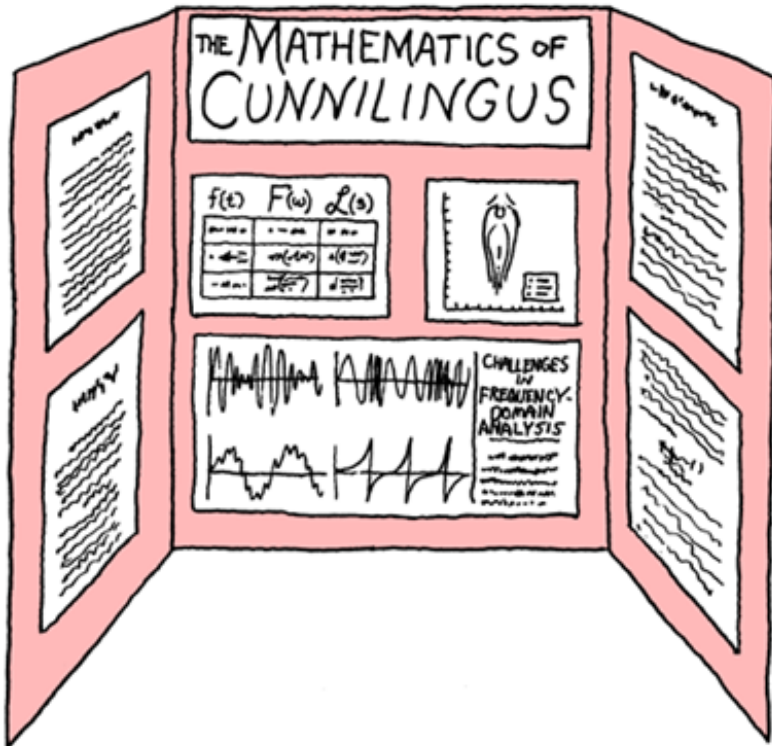
- The first is 37.30194339616981 meters.
- If the raptors at each instant move towards the current position of the person, the second answer is 57.19 degrees to either side of the wounded raptor.
- If the raptors' trajectories are optimal for catching the person as quickly as possible, the second answer is 59.83 degrees to either side of the wounded raptor.

In the title text, Randall asks the kids whether they find this possibility humorous (and they rightfully should, considering that the chances of such a thing occurring are astronomically low).[citation needed]

#136: Science Fair

August 02, 2006

ALTHOUGH IT CAUGHT ME BY SURPRISE AT THE TIME,
LOOKING BACK I UNDERSTAND WHY MY SENIOR
SCIENCE FAIR PROJECT WENT OVER AS BADLY AS IT DID.



This project actually inspired a two-hour powerpoint presentation that Al Gore gave around the country.

Explanation

A science fair involves schoolchildren doing research on a subject of their choice. The purpose is to give them hands-on experience with scientific techniques. Even so, a project based on cunnilingus, oral stimulation of the female genitalia for sexual enjoyment, would not likely be acceptable in a science fair, a setting that is not only public but also involving children. However, adolescents are often very curious about sex and can often misjudge what is appropriate behaviour.

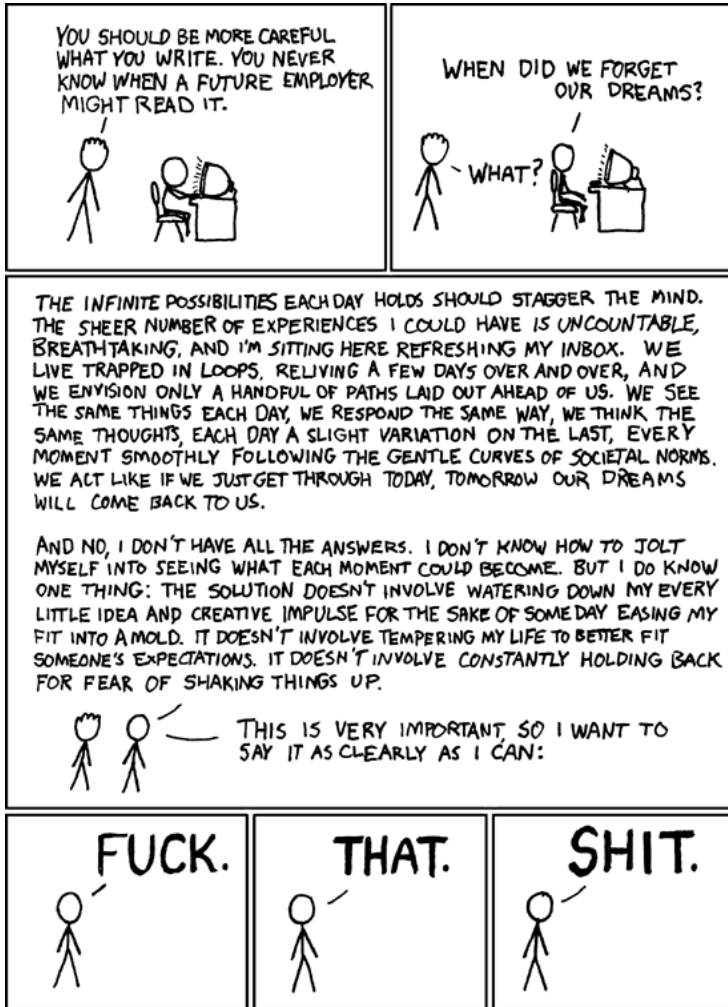
On the center left are the notations for a function $f(t)$, its Fourier transform $F(\omega)$, and its Laplace transform $\mathcal{L}(s)$. The section titled "Challenges in frequency domain analysis" show four graphs that may be representative of amplitude modulation (variation in the depth of licking), frequency modulation (variation of the rate of licking), a small high frequency signal superimposed on a larger, slower one, and a periodic but non-continuous signal, perhaps a tangent function. These would have more complex Fourier and Laplace transforms than a simple sinusoidal licking function.

The title text is probably a reference to *An Inconvenient Truth*, a 94-minute documentary film where former US vice president Al Gore teaches the general public about the dangers of global warming. It has been included in science curricula in schools around the world, to the ire of easily bored students everywhere.

This comic was mentioned in FRUIT OPINIONS! on the Blag. Although this comic must have been one of the more controversial, it had nothing on the impact of 388: Fuck Grapefruit, which was the cause of the Blag entry, as it became the most controversial comic written to that point (i.e. 2008): ...beating out comics about cunnilingus, the Obama endorsement, and my making 4chan tiny on the map of the internet. (See the grapefruit comic for more details).

#137: Dreams

August 04, 2006



In Connor's second thesis it is stated 'There is no fate but what we make for ourselves.' Does the routine destroy our creativity or do we lose creativity and fall into the routine? Anyway, who's up for a road trip!

Explanation

In the first panel of this comic, it is clear that Cueball has just written some comment that his friend thinks will lower his chances for getting a job in the future. This is common advice given to teenagers and young professionals, given as a warning that their posts online could be seen by a potential future boss.

In the next panel, Cueball replies with a seeming non-sequitur: when did we forget our dreams? Without explanation, this seems like one of the overly philosophizing, ultimately meaningless questions that also happen to pop up on social media sites. Cueball's friend is confused by the sudden shift in conversation.

The long monologue Cueball delivers focuses around the fact that as people get older, their lives becomes narrower and less filled with possibilities and novelty. This is a speech made in the manner of someone getting older and missing the simpler days of youth, where everything was much more exciting. From this point, he explains that part of the deadening process is responding the same way to each event that happens, and creating a routine. Routines, Cueball believes, remove our ability to act on our dreams.

Finally, Cueball gets to relating this monologue to posting inappropriate material to social media sites: he will not let his concerns for a nebulous future hinder the outlook on life he has now. He will not limit his choices

in order to conform with the expectations of an uninspired future. He ends with the clear and simple explanation of his choices—"Fuck. That. Shit."

Cueball's use of periods between words in this closing phrase is itself another reference to practices on social media sites; people will sometimes put a period after each word in a short phrase to show emphasis.

Connor's second thesis from the title text is a quote from the character Sarah Connor in the film *Terminator 2*. The message expressed is a restatement of Cueball's monologue: While it sounds trite, each and every one of us has the ability to change our situation, whether by quitting the job we don't like, telling that person that we love them, or some other action. Our action (and inaction) creates our future, including the way in which we react to those things outside our control.

The title text also poses the question of whether the more creativity lost to conformity, the more routine life becomes, or the more routine life becomes, the less creative you become. This is a chicken and egg type question, which is dramatically broken by the suggestion of a roadtrip. This is the situationally unexpected break that shows that the speaker is willing to break out of the routines threatening to set in.

Other comics with a similar theme about finding or taking unexplored paths, instead of fitting into the mold, include 59: Graduation and 267: Choices: Part 4.

#138: Pointers

August 07, 2006



Every computer, at the unreachable memory address `0x-l`, stores a secret. I found it, and it is that all humans are--
SEGMENTATION FAULT.

Explanation

This comic is about a play on the dual meaning of the word "pointer." Cueball is playing a video game, but he seems to be stuck. So he asks Black Hat for a few tips ("pointers") to progress in the game. Black Hat is, as usual, annoying, so he spits out a couple of (seemingly random) 32-bit hexadecimal addresses, which are "pointers" in a programming language. These pointers are used to access a certain location in the computer's memory in order to fulfill a task; however, this would not be helpful in improving his playing the game the normal way (though see below) by perhaps learning of a better weapon loadout, or a quicker route to achieve some mission goal. Ultimately, Cueball is then annoyed at Black Hat for not answering his question in a useful manner.

A segmentation fault, as referred to in the title text, is a result by accessing invalid memory addresses. If you define a pointer to an invalid address, then try to access the memory location associated with it, you could end up with this exception. The hexadecimal address 0x-1 is definitely invalid, because it's out of range. If you treat pointers as signed numbers, it points below the lowest address, 0; if you treat them as unsigned (meaning the numbers wrap around, so -1 is the same as the highest address - 0xFFFFFFFF on a 32-bit system), if it's pointing at any object larger than a byte, most of that object is past the highest address. So, this is a "hidden location," but as soon as you try to read more than one byte at that

location, you will get a segfault. The title text states that Randall has found a secret value hidden at that location anyways, but before he can reveal its apparently-existential meaning, a segfault cuts him off to prevent him from doing so.

The ending letters of the pointers are spelling, reading top to bottom, the word ACE. As Cueball is playing a game, Black Hat could be additionally saying that he's an ace of the game.

Alternate Explanation[edit]

ACE also stands for Arbitrary Code Execution. This is a class of glitches, often found in things like video games. Pointers are often used to cheat in games and do things like change the amount of money you have, and are usually necessary to achieve ACE, if Cueball was prepared and able to directly change the source-code, though there is insufficient detail given as to whether these are perhaps memory locations to change (to patch with different data values) or alternate data-pointers (to be placed somewhere unknown), either of which could change the game in ways that make it easier to play (such as making more bonus items available, or by removing confounding gameplay features).

An example would be if the first pointer was a location in memory the game accidentally ran code from during a common crash condition, that could be controlled by the player (like the number of items in their inventory, or the horizontal location of some Koopas earlier in the level), the second was an address for a jump, and the third was something much more controllable, like the input from the controller. A strategy like this has been used to

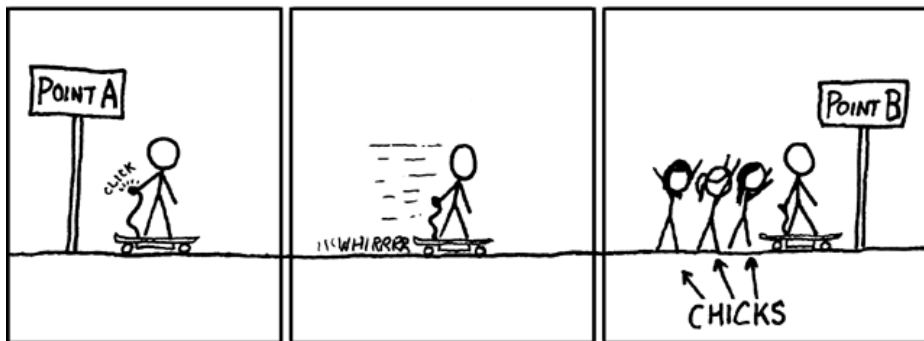
achieve many effects in games like Super Mario World and Ocarina of Time. Examples would be credits warps (which would be much easier than playing the game, especially time-wise) or programing another game into the original game, which, while more complicated, might be used to program in an easier game.

The 'pointers' Black Hat tells him could also be cheat codes, which are 'sanctioned' methods of changing the gameplay. They are built into the normal game interface for testing purposes (perhaps accidentally left in, upon release) and/or provided as 'Easter Eggs' for the players to experience different levels of non-vanilla gameplay. If these are indeed useful cheat-codes, their complexity (and the fact that Black Hat can recite them verbatim without looking them up, presumably being very familiar with their use) would give an extra reason for Cueball to hate him.

#139: I Have Owned Two Electric Skateboards

August 09, 2006

HOW ELECTRIC SKATEBOARDS WORK:



Both the skateboards I owned were pretty cheap and broke from heavy use; I'm gonna get a really nice one if I move to the city.

Explanation

Randall likes electric skateboards (he has owned two already by the time of this comic). This comic shows a simple move where Cueball drives one from A to B.

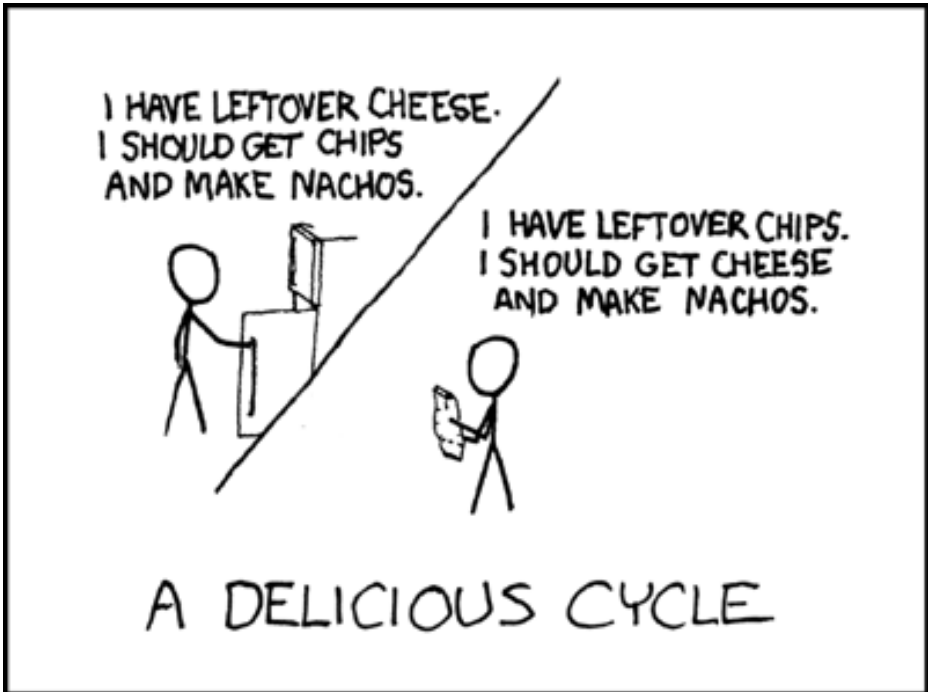
It's not very artistic, but the "chicks" are cheering, and the comic states that this is how they work. The humor of the comic is an understated joke that if you use an electric skateboard just to get around, by the time you get to where you are going, there will already be a group of chicks cheering and following you just because electric skateboards are awesome. (The pickup artist in 1178: Pickup Artists would be disappointed to learn that this is not actually accurate, as it would save him the bother of "sleazy" social manipulation of the desired "chicks," assuming they can afford to acquire an electric skateboard instead.)

In the title text, Randall tells us that both of his two electric skateboards were cheap and have been worn down by heavy use. If he ever moves to the city, he will buy a really nice skateboard. If it is to be able to get around over the shorter distances of the city or if it is just because there are many more "chicks" to impress is left up to the reader's imagination.

Electric skateboards have been the subject of several other comics, but this was the first. It has been featured most prominently in *The Race*, a five part comic series.

#140: Delicious

August 11, 2006



I'm currently in the I Have Cheese phase of this cycle.

Explanation

The simplest explanation for the comic is the recipe for nachos. You take some tortilla chips, spread them out on a plate, sprinkle them with grated cheese and perhaps some other ingredients like salsa, beans, or guacamole, and put the plate in the oven until the cheese is melted. As usual with a full bag of snacks, you always end up with that tiny bit left at the bottom of the bag. In this case, it is either leftover grated cheese (left) or tortilla chips (right). So you end up buying another package of the other ingredient to make nachos again.

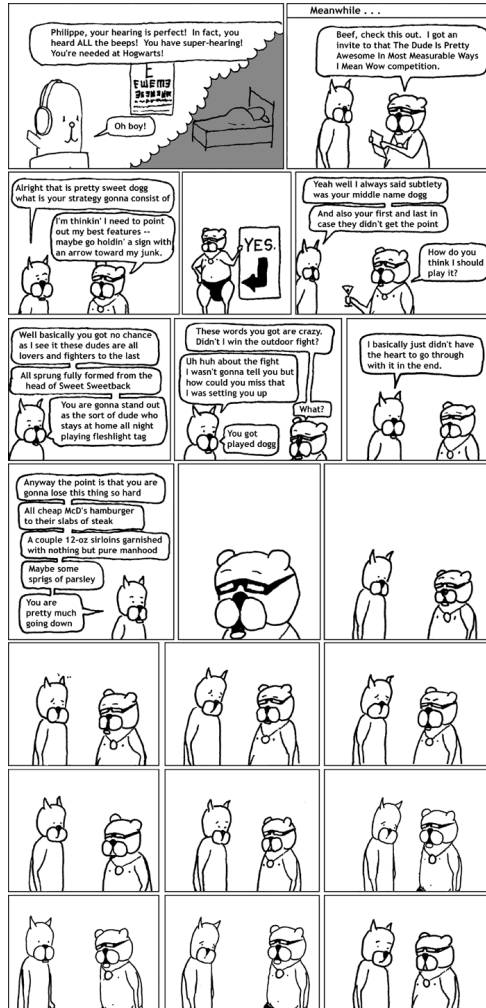
This is an example of a virtuous or vicious cycle, in which a feedback loop reinforces itself. A virtuous cycle has favorable results, while a vicious has detrimental results. In this case, it is neither a virtuous or vicious cycle, but a delicious cycle - the pun of this joke.

The title text just says that currently, Randall has leftover cheese. He will probably get chips soon, continuing the cycle.

The same problem with having leftovers when making a dish using two types of food that don't match up is the setup for the joke in 1641: Hot Dogs.

#141: Parody Week: Achewood

August 14, 2006



Explanation

This comic is a part of the Parody Week, just joking about other webcomics. This series was released on five consecutive days (Monday-Friday), not over the usual Monday/Wednesday/Friday schedule, and it comprises the following five parodies:

- 141: Parody Week: Achewood
- 142: Parody Week: Megatokyo
- 143: Parody Week: TFD and Natalie Dee
- 144: Parody Week: A Softer World
- 145: Parody Week: Dinosaur Comics

Achewood is a webcomic by Chris Onstad. It portrays the lives of a group of anthropomorphic stuffed toys, robots, and pets, and veers between cheerful, vulgar, and philosophical scenes from everyday American life and bizarre surreal interludes - Kevin Smith meets David Lynch. The comic's humor often lacks a traditional punchline and utilizes numerous awkward pause panels.

This comic includes three of the prominent characters from the strip: Philippe a five year old stuffed otter, Ray, and Roast Beef.

In the first panel, Phillippe is dreaming of having his ears checked. The doctor informs him that because of his superhearing power, he is needed at Hogwarts, School of Witchcraft and Wizardry, from Harry Potter. This fits

well with his canon depiction as a dreamer who believes typically childish things in a serious way - a long-running storyline shows Philippe's semi-imaginary run for president on a platform of hugs. On the wall behind him, there is an E chart - a special version of the eye chart for young children.

The comic then switches to Roast Beef and Ray discussing an invitation to a competition described only by its name ("The Dude Is Pretty Awesome In Most Measurable Ways I Mean Wow", reminiscent of the name of Roast Beef's zine "Man Why You Even Got To Do A Thing"). Achewood has had several storylines pertaining to masculinity contests, but the one that Randall is parodying here is the "Great Outdoor Fight," perhaps Achewood's most famous storyline. In this arc, Ray, finding himself in the shadow of his father, the ludicrously strong Ramses Luther Smuckles, decides to enter a 3,000-man brawl called the "Great Outdoor Fight." Although he is nowhere near as strong as the other contestants, after they all kill each other, he is the last man standing, thanks to the help of Roast Beef, and quits the contest when he realizes that he would have to knock his friend out to win.

Ray, who in Achewood typically just wears a thong, glasses, and jewellery as shown here, has a strategy of simply highlighting his genitals. Roast Beef, always a pessimist who speaks without punctuation, offers his take on the competition: Ray is going to lose to the other, significantly more impressive, contestants.

In canon, Roast Beef entered (or at least, hacked himself into) the Great Outdoor Fight specifically to ensure that Ray would win, and was shocked that Ray refused to knock him out. Randall offers an alternative characterization: Roast Beef was setting Ray up and planned to knock him out and claim the trophy, but couldn't complete his plan. Ray is dismayed, and Roast Beef proceeds to further shut him down, comparing Ray (a "McD's" hamburger) to the other competitors (a 12 oz. sirloin steak). This leads to a lengthy awkward pause, spanning the rest of the comic.

The comic is written in the style of Onstad and his humor. The last 10 panels are "awkward-pause panels," which are used frequently in Achewood, in what appears to be a joke about overuse of dialogue-free panels (there are 11 of these, but the first is a shock panel, then the pause begins). This joke is continued in the title-text, where Randall claims that this strip set the record for the most panels of this kind, a record previously held by Achewood.

Sweet Sweetback's Baadasssss Song is a 1971 Blaxploitation film that is generally regarded as an exemplar of its genre - its hero, Sweet Sweetback, is a strong, sexually-talented African American fighting his way out of the ghetto. Bursting fully-formed from Sweet Sweetback's head is a parody of the birth of Greek Goddess Athena.

References to Fleshlight, such as this comment by Beef in the first panel in the third row: You are gonna stand out

as the sort of dude who stays at home all night playing
fleshlight tag , became a recurring theme in xkcd, but this
seems to be the first time.

#142: Parody Week: Megatokyo

August 15, 2006

megaxkcd

IN TODAY'S MEGAXKCD, OUR PROTAGONIST
COMES TO TERMS WITH HIS
ROMANTIC LOVE FOR A GIRL WHO
IS A GAME CONSOLE ACCESSORY.



WAIT, I'M NOT SURE WE SHOULD
PARODY MEGATOKYO.

FRED GALLAGHER DOES
SEEM LIKE HE MIGHT TAKE
IT KIND OF HARD.

HE REALLY DOES.

POOR GUY. WE SHOULD
TRY TO CHEER HIM UP.



FRED? FRED, PLEASE
COME OUT. IT'S OK.
DON'T CRY, FRED.

WE... WE BAKED
YOU A CAKE.



I just want to give him a hug or something.

Explanation

This comic is a part of the Parody Week, just joking about other webcomics. This series was released on five consecutive days (Monday-Friday), not over the usual Monday/Wednesday/Friday schedule, and it comprises the following five parodies:

- 141: Parody Week: Achewood
- 142: Parody Week: Megatokyo
- 143: Parody Week: TFD and Natalie Dee
- 144: Parody Week: A Softer World
- 145: Parody Week: Dinosaur Comics

Megatokyo is a webcomic by Fred Gallagher. Its art and storylines are heavily influenced by Japanese comics known as Manga.

The opening panel sets up a parody of Megatokyo here called megaxkcd. The girl is Ping, a robotic PS2 accessory from the comic. The soft gray-scale art, hand-drawn "shadowed" panel borders, and vertical panel layout also mimic Megatokyo's design.

The joke begins with the main protagonist (probably Piro) falling in love with Ping, a game console accessory, and in today's comic, he is supposed to come to terms with this fact.

But then, the parody is apparently aborted when two characters from the normal xkcd, Cueball and Black Hat,

question the parody, as they are afraid of hurting artist Fred Gallagher's feelings. This itself is a dig at the sometimes maudlin and emotionally tender tone of Megatokyo, and in particular the self-conscious resemblance of anxious protagonist Piro to creator Gallagher, who based the character on a twenty-something version of himself.

This is one of the few comics where Black Hat is not his usual asshole self. So even he likes and approves of Fred and his comic! Actually, Black Hat is the one most concerned for Fred's feelings, and he suggests that they should go and cheer the poor guy up, now that he may have taken the parody kind of hard. Black Hat also yells to him that he should not cry, when he and Cueball arrive on his doorstep with a cake with lots of candles.

The title text reiterates the similarity between the style of the comic and the character of the artist behind it, which has been noted elsewhere as well. It also exclaims Randall's feelings for Fred, his webcomic, and its style.

Falling in love with a robot (or using one for sex) was later investigated in the Android series. And on 144: Parody Week: A Softer World, love and robots are again investigated leading to a pregnant robot.

#143: Parody Week: TFD and Natalie Dee

August 16, 2006



Although bees with tires would be kinda funny.

Explanation

This comic is a part of the Parody Week, just joking about other webcomics. This series was released on five consecutive days (Monday-Friday), not over the usual Monday/Wednesday/Friday schedule, and it comprises the following five parodies:

- 141: Parody Week: Achewood
- 142: Parody Week: Megatokyo
- 143: Parody Week: TFD and Natalie Dee
- 144: Parody Week: A Softer World
- 145: Parody Week: Dinosaur Comics

This comic parodies two comics in one go. TFD is an acronym for Toothpaste For Dinner, which is a daily one-panel cartoon written and drawn by Drew Fairweather. Each comic features small, simple drawings, paired with short captions or dialogue.

Natalie Dee is the author of the daily comics Natalie Dee. This webcomic comprises various sketches illustrating amusing or anecdotal situations from everyday life.

Drew and Natalie are husband & wife, and are also the authors of the webcomic Married to the Sea.

In similar style to their simple comics, we see xkcd's Cueball ask the two creators of the two comics what's funny. The woman in color represents Natalie, who does color drawings that could include animals, and she thinks

bees are funny. The man is Drew drawn like his own characters with a weird head shape. He thinks tires are funny. Then Natalie combines those to say that bees with tires are funny, and he replies, whatever.

The title text points out that it would be funny to see bees with tires. This is because bees, like other living creatures, have no wheels.[citation needed]

#144: Parody Week: A Softer World

August 17, 2006



The robot is pregnant. It isn't mine.

Explanation

This comic is a part of the Parody Week, just joking about other webcomics. This series was released on five consecutive days (Monday-Friday), not over the usual Monday/Wednesday/Friday schedule, and it comprises the following five parodies:

- 141: Parody Week: Achewood
- 142: Parody Week: Megatokyo
- 143: Parody Week: TFD and Natalie Dee
- 144: Parody Week: A Softer World
- 145: Parody Week: Dinosaur Comics

This comic is a parody of Joey Comeau and Emily Horne's A Softer World webcomic that usually consists of three photos with some white text superimposed over them. The title of the comic is written above, and this has here been replaced with xkcd.

The first panel references the Kill command that would be used to turn off the robot every morning. This joke is a reference to the classic Science Fiction theme of robots taking over and killing humans (see for instance 1613: The Three Laws of Robotics).

The second and third panels then turn the comic to a more introspective thought per A Softer World's usual style. There are two possible meanings of these panels.

The first references human's natural reaction to be afraid

of love because it requires vulnerability and honesty, which is very difficult. In the comic, they are afraid to tell it to love, because then it would experience these same difficulties and fears.

The second meaning deals with Artificial Intelligence (AI); specifically strong AI. The idea is that the AI agent would not only act as if it was intelligent, but truly be intelligent and have emotions and feelings as well. There has been much debate over whether an AI agent could actually feel emotions in the same manner as humans, as well as much consternation over the ethical concerns and moral ramifications it would have. Thus the comic's "We're afraid to tell it to love."

The title text takes love to be an act of love-making instead of an emotional feeling, thus why the robot is pregnant. Given that Randall Munroe has signed the comic (which he normally never does, but what is the style of *A Softer World*), the title text must be his comment. So he knows the robot is pregnant, but claims it is not his child. This does not rule out that he has been together with the robot though... Of course this is not possible. But having sex with a robot is the theme in the *Android* series, and falling in love with one was the theme in the 2nd parody 142: *Parody Week: Megatokyo*.

#145: Parody Week: Dinosaur Comics

August 18, 2006



Guys: while I was writing this, I accidentally swallowed a table-sized slab of drywall. I know! Wacky.

Explanation

This comic is a part of the Parody Week, just joking about other webcomics. This series was released on five consecutive days (Monday-Friday), not over the usual Monday/Wednesday/Friday schedule, and it comprises the following five parodies:

- 141: Parody Week: Achewood
- 142: Parody Week: Megatokyo
- 143: Parody Week: TFD and Natalie Dee
- 144: Parody Week: A Softer World
- 145: Parody Week: Dinosaur Comics

Dinosaur Comics is a webcomic by Ryan North. The artwork never changes, save a few rare exceptions, and only the dialogue is different. Randall traced the comic's usual artwork, though the drawing of the house about to be squashed in panel 3 is a more rudimentary rendition, and the person about to be squashed in panel 4 has been changed into Cueball rather than a woman in bright yellow and pink clothes.

For those who haven't read it, this is a typical strip, and here's a strip dealing with the same subject as this comic (but posted five years after it). See also this particular example, where the title text actually refer to Randall and xkcd.

Randall makes several shots at recurring themes in

Dinosaur Comics. T-Rex, the green Tyrannosaurus, is bold and enthusiastic, discussing various topics, a favorite of which appears to be linguistics (North got his degree in computational linguistics). This time, he is talking about "they" being used as a third person singular gender-free pronoun and how it should be more widely used, even though its acceptance varies. Dromiceiomimus, the white dinosaur in the third panel, usually responds calmly to T-Rex's discussions. T-Rex then elaborates on how singular "they" has been used for centuries (specifically since the fourteenth century), with the change in convention being relatively recent (having fallen out of "fashion" in the nineteenth century). Technically, the English language lacks personal pronouns that are gender-neutral in the singular third-person — that is, there are only gender-specific personal pronouns such as "he" and "she" — so when a gender-neutral pronoun is needed, plural pronouns such as "they" (which are gender-neutral) are often used instead. There is some debate about whether this is a grammatical error, which may result in the use of grammatically correct, but cumbersome, gender-neutral phrases such as "he or she", "him or her", "his or hers" and so on. To compensate for these shortcomings, other gender-neutral personal pronouns for the singular third-person have also been introduced, such as "he/she", "s/he" and "xe" instead of "he or she", or "hirs" instead of "his or hers." T-Rex considers these constructs to be "ridiculous" and points out that they can be avoided by simply using the singular "they" instead.

While "he/she" and "s/he" are commonly used as a gender-neutral pronoun when gender is unknown, "xe" and "hirs" are often used for genderqueer individuals. Genderqueer persons do not subscribe to a "binary" definition of gender, where the only genders are male and female, and may identify as having, just to name a few examples, a gender between male and female, a combination of both male and female genders, no gender (terms for this include "genderless", "agender," and "neutrois"), a separate gender from male and female, an unnameable gender, or a "fluid" gender identity that shifts between multiple genders ("genderfluidity").

Utahraptor, the orange dinosaur, typically contradicts T-Rex, but Randall subverts this pattern and has him agree. The comic suggests that the perpetual disagreement stems from a 'rift' in the author's mind, which would be healed if only he lived in a world where there were a land bridge between Asia and North America.

In the last panel, the narrator starts with "In a world...", a phrase made famous by Don LaFontaine in movie trailers. "In a world..." is also likely a reference to the recurring gag of Dinosaur Comics suddenly jumping to alternate worlds or time periods that have whatever conditions T-Rex and his friends have been discussing, to humorous effect.

The last sentence suggests that in this other world, everyone is bi-curious. This is a phenomenon in which people of a heterosexual or homosexual identity who,

while showing some curiosity for a relationship or sexual activity with a person of the sex they do not favor, distinguish themselves from the bisexual label. Bi-curious has been used as the word of the day two days in a row on May 11th and May 12th 2004, so it's no wonder Randall put the word in this comic. The suggestion that "everyone is bi-curious" could be a reference to Arthur C. Clarke's book *Imperial Earth*, where bisexuality is the norm. Deliberately trite and awkward explorations of this subject matter are also a recurring theme in Dinosaur Comics.

Like xkcd, Dinosaur Comics has title texts. Ryan's title texts are often bizarre non-sequiturs; the title text for the 2593rd comic, eleven years after the appearance of the first comic, read "the sixth panel and the second panel are just zoomed versions of each other. IT'S TRUE. I'M SORRY. I COULDN'T BEAR CARRYING THIS TERRIBLE SECRET ANY LONGER." The title text in this parody fits this pattern.

However, the sixth panel of that particular comic starts with the words, "AND SO GOD REWINDS TIME TO THE SECOND PANEL OF THIS COMIC", making that comic a more appropriate place for that title text than the average Dinosaur Comic. Also, 2596th comic has the title text "see, this is what you get for reading MY comic! did xkcd award you any degrees today?? DIDN'T THINK SO. check and mate, randy", which is both relevant to the actual comic and mentions xkcd.

T-Rex from Dinosaur Comics later appeared in 1350:

Lorenz (see this example story line, and the Dinosaur section under Lorenz themes), where the actual images from Ryan's comic are used instead of copies by Randall. The final image of the actual comic was used in 1452: Jurassic World and, as a mirror image, 3012: The Future of Orion.

#146: Join Myspace

August 21, 2006



I really shouldn't abuse that power so heavily.

Explanation

This comic refers to the 1980s TV/comic series *Care Bears*, in which various cuddly bears in rainbow colors go on missions to save the world. The characters' ultimate weapon is the "Care Bear Stare," in which the Bears stand together and radiate light from their respective tummy symbols. These combine to form a ray of love and good cheer that could bring care and joy into the target's heart. Of course, Black Hat's carebearstare is far more lethal.

Cueball is trying to convince Black Hat to create an account at Myspace, a networking site, but Black Hat isn't interested. When Black Hat gets annoyed by Cueball's persuasions, he activates his "carebearstare," thus overthrowing Cueball's request to be friends on myspace.

One possible explanation for Black Hat's odd choice of weaponry is that he is mocking Cueball. The phrase "Please? I'll friend you" sounds like an average preschooler's coaxing (along the lines of "Please? I'll be your friend!"). Therefore, Black Hat may feel that Cueball's remarks seem childish and deserve a childish backlash.

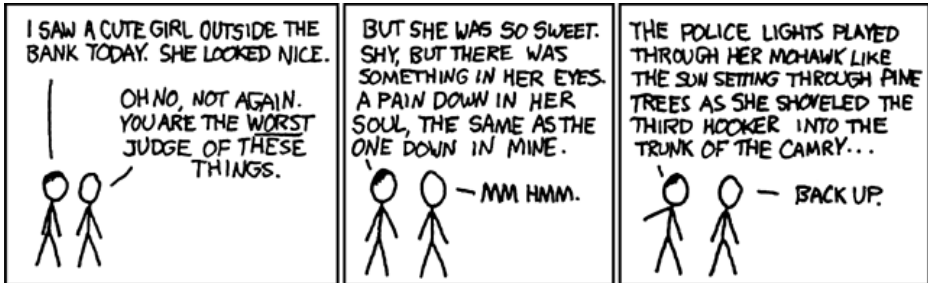
On a nostalgic note, considering the state of social media in the 2010s, Black Hat is just really good at foreshadowing.

In the title text, Black Hat reflects that he uses his

carebearstare power too much, possibly as a form of apology to Cueball.

#147: A Way So Familiar

August 23, 2006



Two Hedwig references, an obscure Joey Comeau reference, and a girl with a mohawk. Yes.

Explanation

Some introverts tend to empathize with other people they perceive as being shy or introverted. Sometimes, their imagination leads them to obscure visions. A person outside the imaginative world can easily see through this and judge it as a delusion.

Hairy points out that he saw a girl at the bank and probably started having platonic romantic feelings toward her, describing many characteristics that would be impossible to know about her without actually talking to her. Cueball has clearly experienced Hairy's bad judgements before, and so responds with a "Oh no, not again."

In the last panel, the reader finds out that she probably does not look like the sweet girl the reader imagined, having a mohawk and shoveling (presumably dead) prostitutes into a car. This quickly prompts Cueball to say "back up," wanting to know what exactly had happened.

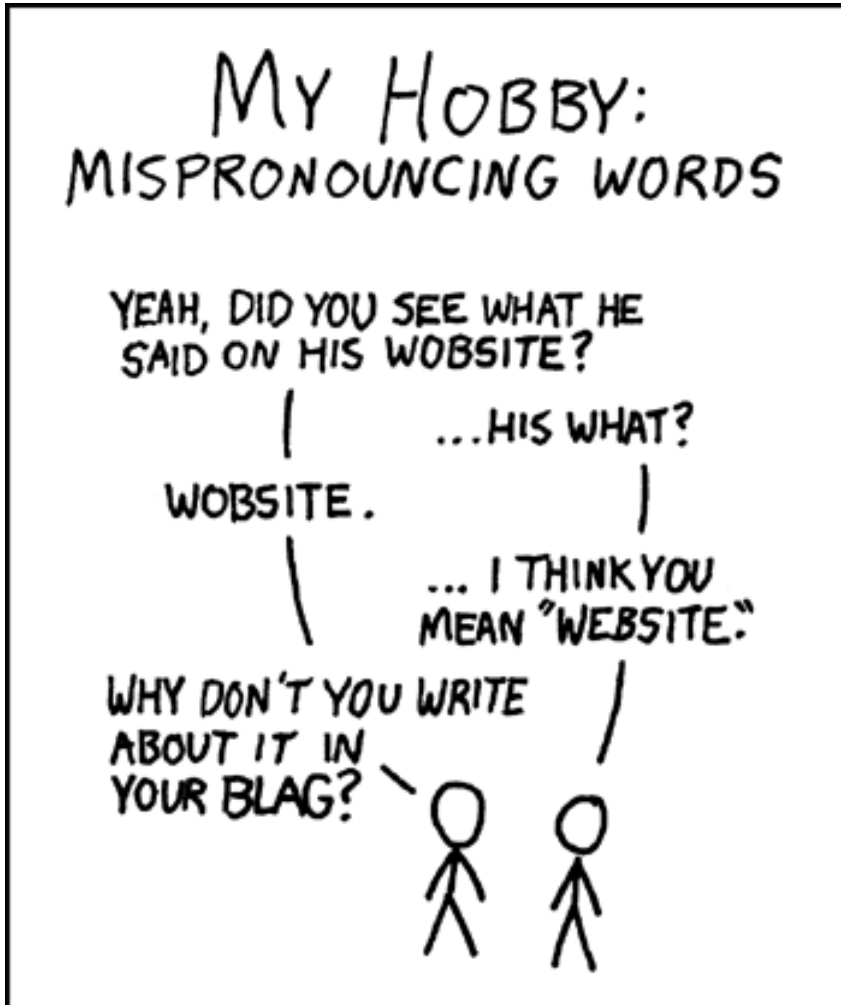
Joey Comeau is a Canadian writer, best known for the webcomic "A Softer World". The "obscure" reference is probably to one of the entries in his 'Overqualified' series, another project in which he submits sincere-sounding, but clearly unacceptable, job inquiries to real companies. That particular entry is addressed to the marketing department of Toyota, the makers of the Toyota Camry. The post could be found [here](#).

Hedwig refers to the musical *Hedwig and the Angry Inch*, and the comic references the musical's song "The Origin of Love." This song is based on a satirical idea from Plato's *Symposium*, whereby every person originally consisted of two bodies joined together; the gods eventually violently tore us apart, and we fall in love when we find the person who was once physically joined to us. This song contains the lyrics:

The joke is that Hairy seems oblivious to the fact that his imagination is a very obvious delusion. While people could forgive a guy empathizing with a "cute pretty girl," Cueball seems annoyed by Hairy's lack of judgement.

#148: Mispronouncing

August 25, 2006



My pal Emad does this all the time. 'Hey man, which way to the airport?'

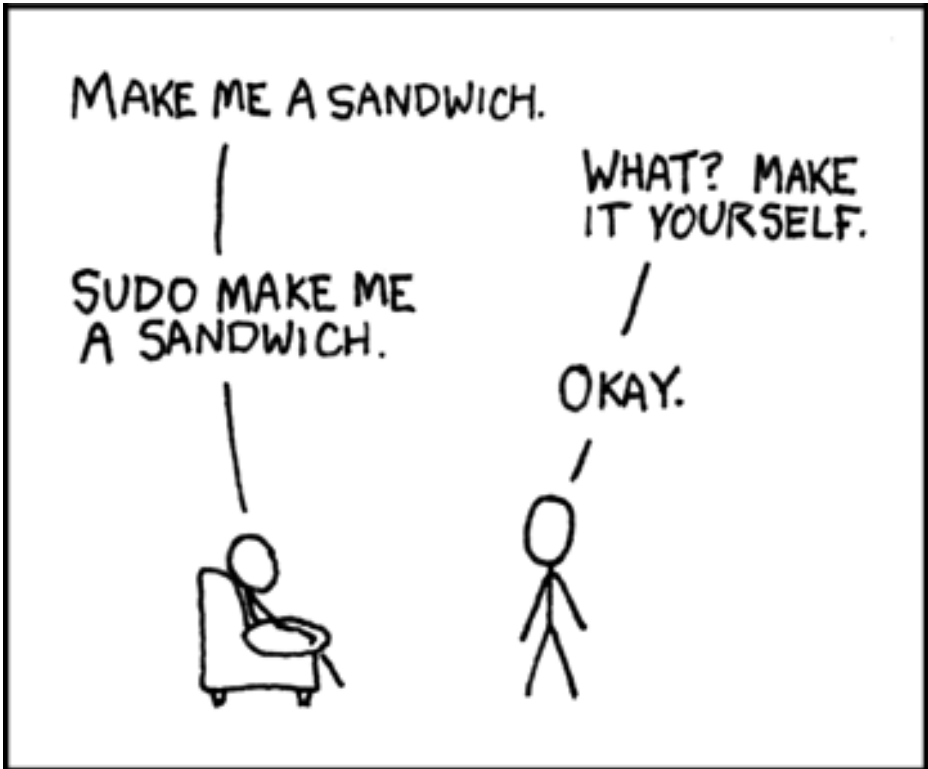
Explanation

This is the sixth comic in the My Hobby series. His "hobby" in this one is deliberately mispronouncing words while talking. Hobbies in the My Hobby series are generally annoying or weird, but with an element of cleverness. Here, Cueball persists in mispronouncing his words despite the second character's attempt to correct him. Interestingly, when Randall started the xkcd blog in October 2006, 6 weeks after the publication of this comic, he named it "Blag". He has used that name in several other comics, such as 181: Interblag and 239: Blagofaire. Today, if someone visits <https://blag.xkcd.com> they get redirected to blog.xkcd.com, but the slogan at the top still says "xkcd - The blag of the webcomic".

In the title text, Randall explains that he got the idea for this comic from one of his friends; it's unclear whether the friend's mispronunciations are purposeful like those in the comic.

#149: Sandwich

August 28, 2006



Proper User Policy apparently means Simon Says.

Explanation

On both Windows and UNIX computer systems, users can be assigned all kinds of rights, for example rights to access certain directories and files, or to execute certain commands. The `sudo` command (pronounced "sue do" or "pseudo") lets certain (authorized) UNIX users override these policies by executing the command (everything after the word "sudo" on the command line) as the root user. Root (sometimes called the superuser) has complete system powers, exempt from all access controls; it is similar to a Windows administrator, however even the powers of a Windows administrator is limited - the `system32` folder, for example, cannot be deleted because it is a critical part of the operating system, while there is no such restriction on UNIX - if a root user feels like deleting (or accidentally deletes) a vital file, they are free to do so. As a result, common advice is to not use `sudo` unless the command in question absolutely requires it - indeed, most commands do not require such privileges.

One very common activity for UNIX administrators is to install or configure software using the UNIX `make` command, e.g. `% make install`. Often this command requires administrative permissions in order to complete successfully, which in practice means the "make this" command will fail unless it is typed as "sudo make this" instead. However as mentioned before since most commands work just fine without `sudo`, along with general discouragement from using it willy-nilly, it is

fairly common for people who use or administer UNIX systems to attempt a straight up `% make install` and have it fail. They then need to repeat the command with "sudo," whereupon the computer responds obediently, and everything works smoothly.

Cueball is demanding a sandwich from his friend. Not being properly asked, the friend denies the request. Cueball then (ab)uses the `sudo` command on the friend, who then has no choice but to go and make the sandwich, and now does so without complaint, because Cueball has all the rights. For anyone versed in installing system software with the `make` command, this exchange is intensely reminiscent of the analogous onscreen experience.

Simon Says is a children's game in which a leader gives various commands that must be followed if and only if (iff) the leader prefixes the command with "Simon says." The title text compares the way the computer will run some commands if (and only if) they are preceded with "sudo" to the way Simon Says players are supposed to follow orders if (and only if) they are preceded with "Simon says."

Alternatively, the title text might merely be referring to the similarity between Cueball ordering his friend around with "sudo" to the Simon Says game leader ordering other players around. Wikipedia suggests that the "Simon" in the name of the game may be the powerful lord Simon de Montfort, or a corruption of Cicero, both of whom were influential politicians of

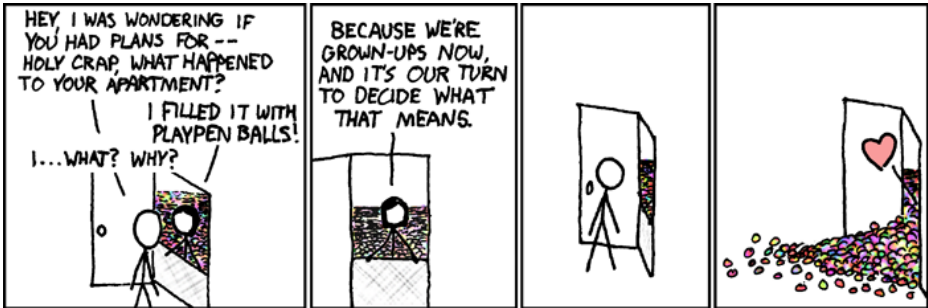
their day.

In xkcd: volume 0, an additional line is added: Make: ***
No rule to make target 'sandwich'. Stop.

Make uses a file within the program in order to determine how to make it; lack of such a file will give an error. This sentence shows just that happening to 'sandwich': there are no clear instructions that make has found for it, the same way that Cueball has not specified the sandwich beyond its moniker.

#150: Grownups

August 29, 2006



I've looked into this, and I can't figure out a way to do it cheaply. And I guess it wouldn't be sanitary.

Explanation

Randall is again playing with the child/grownup mental setup. During childhood, adults ("grownups") make most of the decisions and put constraints on what their children do. As children age and eventually become grownups, there are some things that they do not do anymore, as they see them as childish.

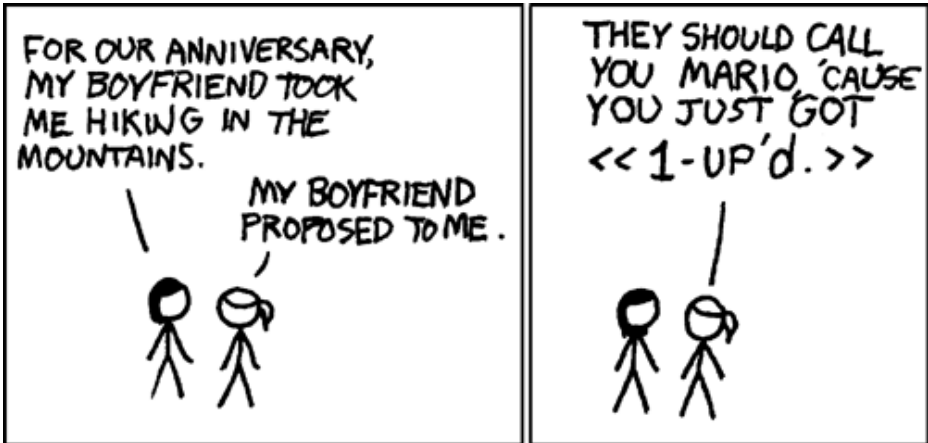
Megan has taken these thoughts seriously, and realizes that with her newfound freedom as a grownup, she gets to define what her adulthood means. Free from constraints, she goes ahead and creates a ball pit in her apartment of colored plastic balls. Cueball admires this spirit and enters the ball pit. It is difficult to decipher Randall's true intent behind this somewhat cryptic comic, but it seems from the heart that the two are engaging in sexual activity in the pit.

The trend with adults participating in children's activities is continued in 219: Blanket Fort, and with adults who feel like children while doing adult things as in 616: Lease, which references this comic in the title text.

The title text reveals that Randall also would like to make his own ball pit, but he finds it expensive to buy and also hard to keep clean. Both of these are true - see links. Most public ball pits can easily become very dirty, as many children and toddlers play in them.

#151: Mario

September 01, 2006



Why would anyone ever, ever say that? Please, nobody ever say that.

Explanation

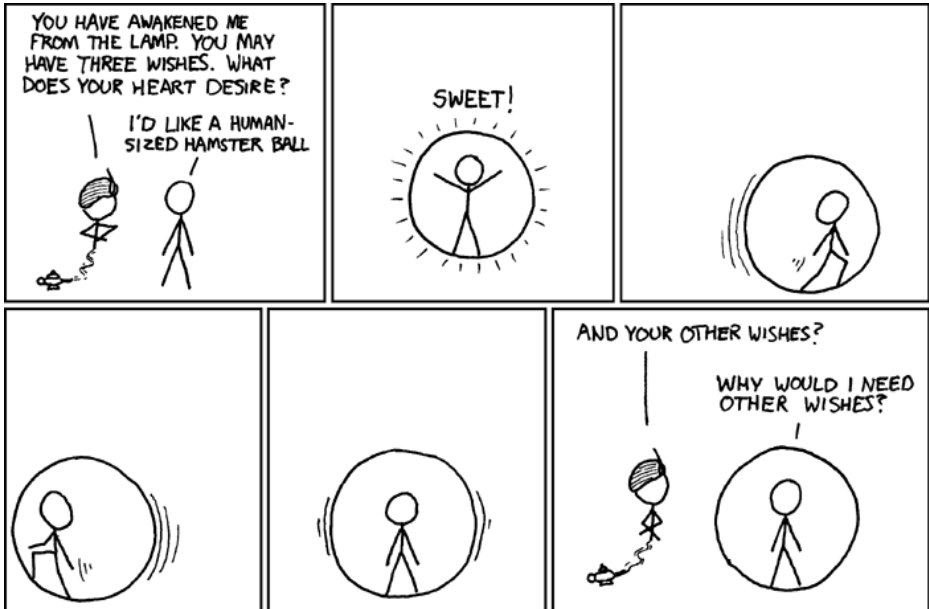
One-upmanship is the act of surpassing another person. In this case, one female character is one-upping her friend's claim of being taken on a mountain hike with a claim that she was proposed to.

Mario is the major figure in the Super Mario series. In the games, completing specific conditions causes a "1-up" (but the marks are chevrons («»)), used in some languages like French or Russian instead of quotation marks) to appear on screen, referring to an additional life. The comic relies on the homonym of the action of one-upmanship and the event of one-ups in Mario.

In the title text, Randall says that this is a pretty bad joke (and also somewhat tasteless) and he doesn't wish to hear it.

#152: Hamster Ball

September 03, 2006



Reportedly, double-walled inflatable balls like this exist somewhere. Now to find that place.

Explanation

The comic starts with a genie, who, having been freed from a magical lamp, grants the owner three wishes; this isn't unusual, since the idea of a genie who does this is a very common trope in the fantasy genre.

Cueball asks for a human-sized hamster ball, and when he gets it, he starts to roll around in it, obviously entertained.

The genie then asks what he would like for his other two wishes, to which, having already being granted his heart's desire, he states that he wouldn't need the other wishes for anything.

The title text refers to the activity of Zorbing. Later, Randall found out where to get one and went on a hamster ball heist, and hamster balls have been a recurring theme on xkcd since this comic, and 14 years later it received a direct sequel 2331: Hamster Ball 2.

This comic is referenced in 1975: Right Click, where one of the things the ADVENT.EXE wishing well allows you to wish for is a human-sized hamster ball. Doing so redirects you to this page.

Genies (or magic lamps) are mentioned in at least five other comics:

- 532: Piano
- 879: Lamp

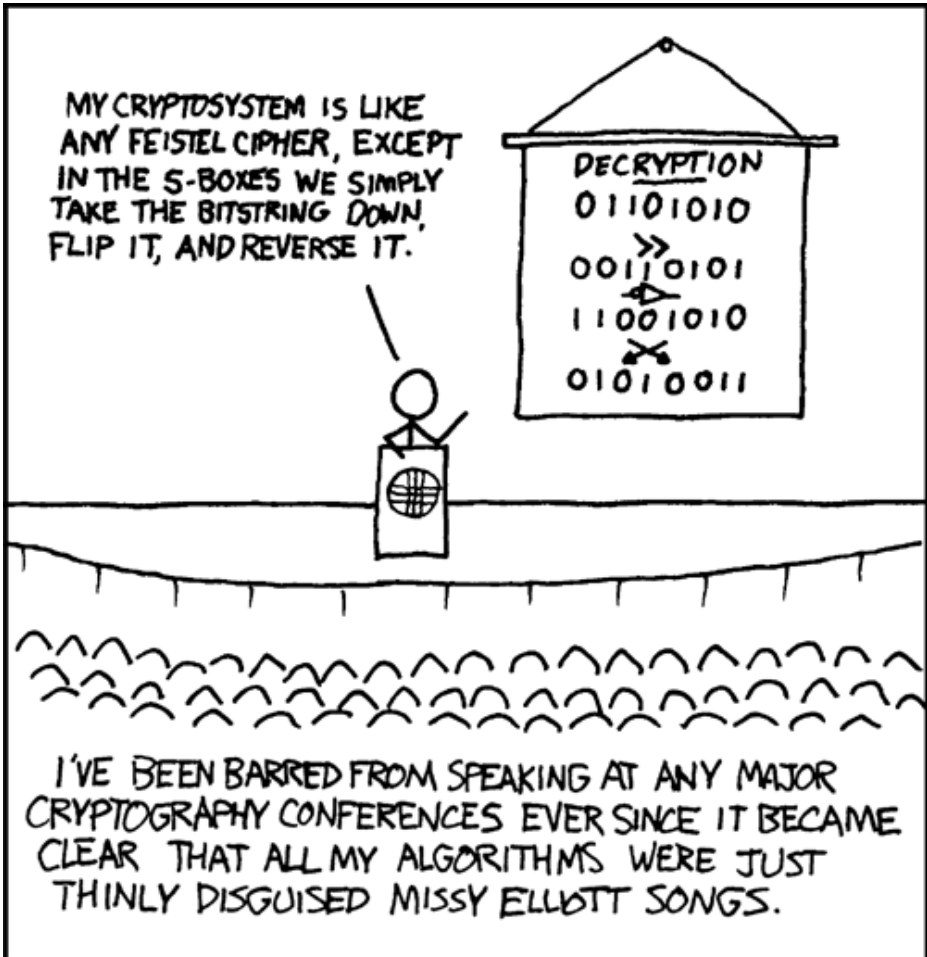
- 1391: Darkness
- 2193: Well-Ordering Principle
- 2741: Wish Interpretation

In the first two, Randall manages to use the concept to make penis-related jokes.

In the fourth, the issue of number of wishes is discussed, from the perspective of wanting more than three wishes. The issue of wishing for more wishes is also the subject of 1086: Eyelash Wish Log, so it is not always enough with one or even three wishes!

#153: Cryptography

September 06, 2006



If you got a big keyspace, let me search it.

Explanation

This comic refers to the study of cryptography. We can note the presence of the International Association for Cryptologic Research (IACR) logo in the lectern (podium?), an association that organizes the most important conferences in the cryptology field.

Randall, drawn as Cueball behind the lectern at the podium, is describing a proposed crypto system in which a computer program turns a very large number, called the "key," and a message into an encrypted form that can only be read by using the same key, based on the model of a Feistel cipher. Part of any Feistel cipher is the "round function," which determines how the key is applied to the original message; this is applied multiple times with a variety of tricks and techniques to ensure that the process can eventually be reversed. One common component of round functions is the S-box, a simple table that converts input bytes into output bytes, preferably in a way that doesn't correspond to any mathematical rules.

Here, the S-box would be implemented by doing the following (with the computer operation actually shown in the diagrams indicated in parentheses):

This would be run on each round of the cipher to further scramble the message for the next round. As the caption implies, the steps are based on a line from the Missy Elliott song Work It: "I put my thing down, flip it and reverse it." As with any encryption system, there must be

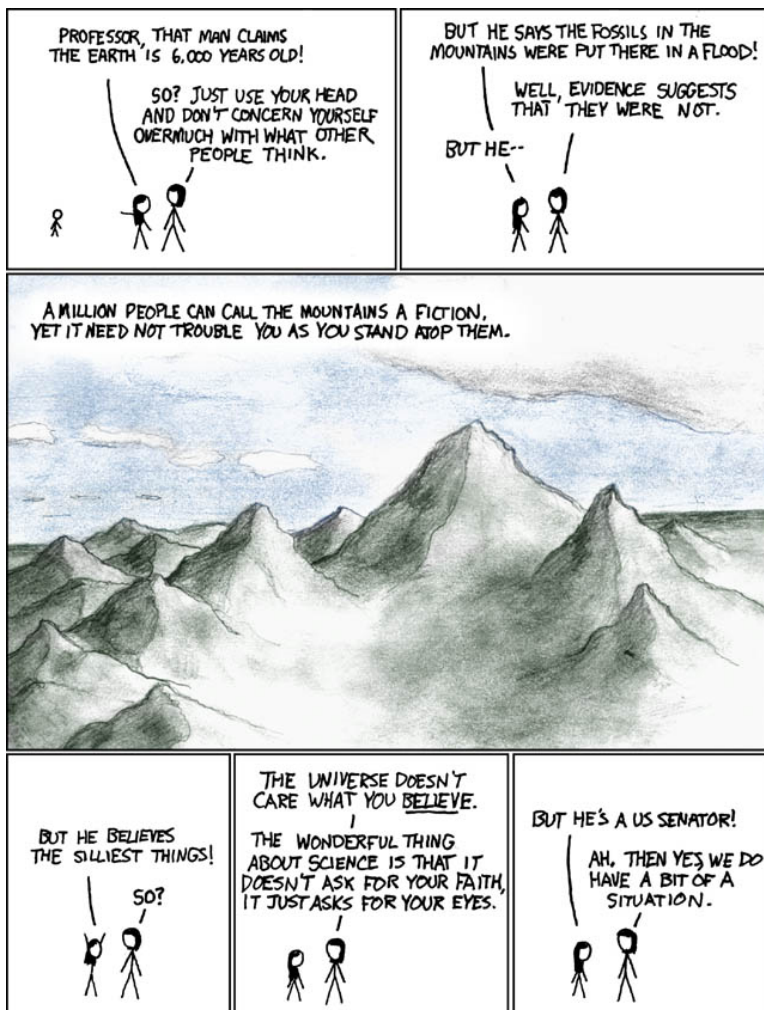
a way to decrypt the cipher text. In Missy Elliott's song, the phrase "I put my thing down, flip it and reverse it" is repeatedly played backward, sounding like gibberish. In the same way, steps to a Feistel cipher-based algorithm are executed in reverse to obtain the original plain text from a cipher text.

The keyspace for a cryptographic algorithm is the number of possible keys the algorithm can possibly accept. For example, AES-256 has a keyspace of 2256 (roughly 1.1579209×10^{77}) possible keys, simply because the algorithm specifies that each key is 256 bits wide. The title text is referring to "searching a keyspace," which is to say, simply trying every key until you find one that works. (For reference, a computer would require roughly the energy of a billion billion supernovas to even count to 2256, let alone actually try each one.) The precise wording, "If you got a big keyspace, let me search it" is, of course, another reference to the same song: "If you got a big **** let me search ya" (The word "penis" is censored by the trumpeting of an elephant).

This was the first comic where Randall was banned from conferences. Since then, he has been banned from multiple conferences for similar pranks; especially in 541: TED Talk, there is a whole list of conferences from which he has been banned. This has sometimes resulted in him being invited to those conferences - see more here on this PyCon response to Randall claiming he was banned from their conference.

#154: Beliefs

September 08, 2006



Scientists are also sexy, let's not forget that.

Explanation

This comic is a reference to Young Earth creationism, which includes the belief that the Earth has only existed for about 6,000 years. Young Earth creationism is mainly based on literal interpretations of the Bible, which is pseudoscience. The professor is originally not bothered by the fact that someone believes in Young Earth creationism and simply tells the child to look at the scientific evidence. However, she then hears that the person is actually a United States senator, who would presumably influence national policy according to his creationist beliefs. This, she acknowledges, is an actual problem.

The comment on the fossils refers to an argument by some Young Earth creationists about the discovery of fossilized sea creatures at high altitudes. While mainstream science sees this as evidence of geological processes taking far longer than six thousand years, these creationists say that sea life reached these locations during a worldwide flood that covered even the tops of mountains.

The story of this flood, colloquially called Noah's Ark, is found in the Biblical Book of Genesis; chapters six through nine. Though it is not stated in the Bible story, many sea creatures are presumed by those who make this claim to have died at high altitudes when the waters lowered. This is a theory held by some Young Earth creationists for the fossils.

The last panel is a reference to the fact that a number of people vote based on their perception that the person they're voting for shares their religious views, and then that person goes on to make legislative or educational (if they were voted to a board of education) decisions based on said beliefs. There have been several instances in the U.S. of state boards of education trying to or succeeding at including young-earth or other creationist theories in the state's science curriculum. See for instance Theistic evolution.

The title text makes a further, more playful jab, claiming that scientists not only have the upper hand in reasoning but also in sexiness. This subverts the once-commonly held idea that smarts and attractiveness are not always contained in the same "package," the stereotypical scientist being boring and dull. It also adds a tinge of irony, as no competent reasoner would make an argument from sexiness.

#155: Search History

September 11, 2006



— IN SOLIDARITY WITH THE MANY AOL USERS WHOSE OFTEN EMBARRASSING WEB SEARCHES WERE RELEASED TO THE PUBLIC, I OFFER A SAMPLE OF MY OWN SEARCH HISTORY:



Web [Images](#) [Video](#) ^{New!} [News](#) [Maps](#) [more »](#)

[Advanced Search](#)
[Preferences](#)
[Language Tools](#)

velociraptors
site:imdb.com "jurassic park"
raptors
dromaeosaurids
utahraptor
"home depot" deadbolts
security home improvement
surviving a raptor attack
robert bakker paleontologist
robert bakker "possible raptor sympathizer"
site:en.wikipedia.org surviving a raptor attack
learning from mistakes in jurassic park
big-game rifles
tire irons
treating raptor wounds
do raptors fear fire
how to make a molotov cocktail
do raptors fear death
can raptors pick locks
how to tell if my neighbors are raptors

SomethingAwful has a wonderful compilation of crazy AOL searches in their Weekend Web archives, 2006-08-13.

Explanation

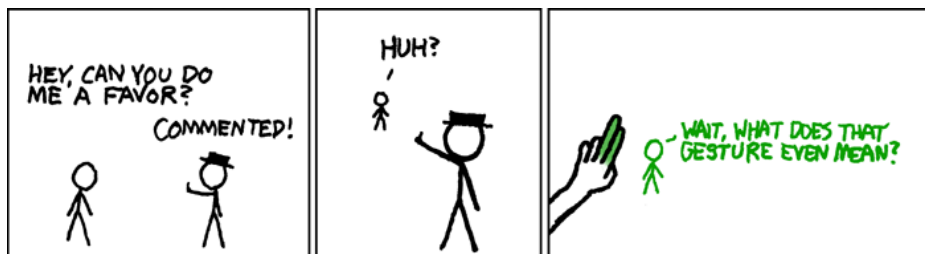
The comic references the AOL search data leak, where users had potentially identifying and embarrassing search histories published. Randall, drawn as Cueball, thus publishes his own potentially embarrassing searches in solidarity with the AOL users. All of his searches relate to his fear of dinosaurs, mainly velociraptors, as a consequence of the Jurassic Park movie he saw when younger. The search "Utahraptor" may be a reference to Dinosaur Comics, which xkcd has parodied in 145: Parody Week: Dinosaur Comics. Alternatively, "Utahraptor" may be referenced because the raptors portrayed in Jurassic Park were much more like utahraptors than velociraptors in terms of size.

The title text refers to a document posted on a humor site (very NSFW): part 1, part 2, part 3.

Here is each search in order with an explanation given:

#156: Commented

September 13, 2006



Your IDE's color may vary.

Explanation

When Cueball asks Black Hat for a favor, he seems to be making a rude gesture, by lifting a finger towards Cueball. However, the word he says, Commented!, does not seem to fit with the shorter four letter word usually combined with such a gesture.

Cueball also fails to understand this, but as it turns out, as the panels move around Black Hat and zooms in on his fingers, he is not making this rude gesture, but is instead actually lifting two fingers toward Cueball, forming a double slash and thereby ignoring both him and his question for a favor, by commenting him out programming style, even to the point where Black Hat sees the commenting out slashes, Cueball, and anything he says in the color for ignored parts of the program (or real world in this case).

In certain programming languages (including but not limited to C (since C99), C++, C#, Java, Javascript, PHP, and Scala), inserting a double slash (//) in a line marks everything after the double slash in the line as a "comment," i.e. something for humans to read that generally helps them understand the code better, rather than something for the computer to execute. Since all comment lines are ignored when a program is run or compiled, it is possible to simply put a double slash in front of any line of code to skip that line. This is known as "commenting out" the line. For example:

An Integrated Development Environment (IDE for short) is an application that programmers use to write, compile, execute, and debug code. Many IDEs color-code text to make reading the code easier. In IDEs like Eclipse and Microsoft Visual Studio, a line that is commented out will be colored green; however, the color may vary depending on which IDE you use, and can usually also be customized. The title text refers to this variation among IDEs' color schemes.

#157: Filler Art

September 15, 2006

SORRY GUYS NO COMIC TODAY, I'VE GOTTA GO
TO THE DOCTOR TO GET MY THIGHS ROTATED.
BUT HERE'S SOME NEW CHARACTER ART I'M WORKING ON!



Maybe I should let up on Megatokyo a little?

Explanation

There are times in which the owner of a webcomic can not make a comic on time for the next scheduled update (for example, needing to attend to a family emergency). Some deal with these situations by creating a "buffer" of comics (that is, making several comics ahead of time) in anticipation for these events. However, if the buffer runs out (or if there was no buffer in the first place), the owner might have to resort to uploading whatever is available (e.g. concept art, random sketches, a draft of the planned comic, etc.). Many webcomic owners prefer to upload filler art so that their more fickle fans can see that they have not abandoned the comic.

Here, Randall parodies this situation with two separate punchlines. First, he tells us that he has to go to the doctor to get his thighs rotated, which is medically unnecessary (as a "thigh rotation" is physically impossible, and is likely a play on tire rotation). Second, he refers to "new character art" for his comic. The punchline here is that, since the characters are drawn in a stick figure style, there are no distinguishable features between the man here and most other males in the comic series. In addition, the fact that this stick figure should not have taken more than 10 seconds to draw makes the notion that Randall has been "working on" it ridiculous.

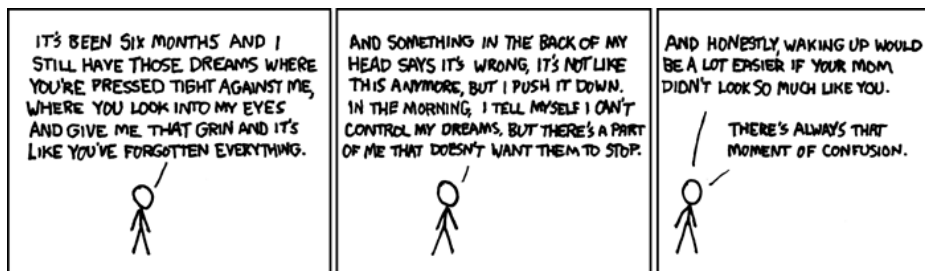
The title text refers to Megatokyo, a popular webcomic widely known for its use of filler art. Creator Fred Gallagher, who goes by his online moniker Piro,

frequently makes use of what have come to be called "Dead Piro Days", in which he posts character art, or concept art often based in the comic's world or characters, generally of draft or unfinished quality. By his own admission, these days of filler art are sometimes the result of nothing more than his feeling too under the weather, or tired, or emotionally depressed to put in the necessary amount of work to finish a proper update. While Gallagher has been raked over the coals for this by the broader webcomics community, longtime fans of Megatokyo tend to be highly tolerant and have been described as "some of the most patient and forgiving" readers, often viewing these lapses as endearing rather than inconvenient.

Randall's mention of letting up on Megatokyo refers to 142: Parody Week: Megatokyo, in which Megatokyo and Gallagher were also teased.

#158: Six Months

September 18, 2006



But then she does that thing with her tongue and I remember why I left you.

Explanation

Cueball is addressing his ex-partner, telling her that six months after their split-up, he still has dreams of them being together. In the moment after waking up, he is sometimes unable to tell reality and dream apart. However, the third panel reveals the punchline: His confusion results from the likeness between his ex and her mother, next to whom he apparently wakes up every morning. It becomes clear that he has left the girl six months ago in order to live with her mother instead. The comic lampshades at the state of emotional confusion after a break-up that is prominently featured in many films and books.

The title text furthers the joke, saying the confusion of why he left her is gone once the older woman does "that thing with her tongue," possibly referring to fellatio.

#159: Boombox

September 20, 2006



And she's gonna feel like a jerk when she realizes it was actually Under Pressure.

Explanation

We see Cueball declare his love for Megan in an oft-used setting, paying homage to similar events in classic literature, notably the "balcony scene" from William Shakespeare's play *Romeo and Juliet* (act 2, scene 2), and a similar situation in Edmond Rostand's *Cyrano de Bergerac* (act 3, scenes 6-7). In the former, Romeo, attempting to woo Juliet, stands beneath her balcony to profess his love for her. In the latter, an inarticulate cadet, Christian, professes his love for Roxane by arranging to use the words of a fellow soldier, Cyrano, who secretly also loves Roxane. The 1989 movie *"Say Anything..."* contains a modern interpretation of this declaration of love, where John Cusack plays Peter Gabriel's *"In Your Eyes"* on a boombox outside the house of the girl he likes.

Parodying this iconic scene (video), Cueball is holding up a boombox (a self-contained semiportable stereo system, typically with cassette tape or CD player, and complete with integrated speakers) that is playing music while Cueball declares his love for Megan. She first is startled, embarrassed, then eventually confused by the 1990 hit single *Ice Ice Baby* (video) by Vanilla Ice playing on the boombox. Cueball then admits he is "not very good at this," attempting to recreate the classic romantic scene, but utterly failing to play music suitable for such an event. The film scene is also referenced and parodied in the *South Park* episode 'Raisins', when Stan unsuccessfully tries to win back his ex-girlfriend Wendy in this fashion. Stan is advised to play Peter Gabriel out

of a boombox, but plays the decidedly unromantic Peter Gabriel track Shock The Monkey. It is possible that Randall was also referencing that South Park scene in this comic.

The title text mentions that Cueball is actually playing "Under Pressure" (video), the 1981 hit song by Queen and David Bowie, but Megan has confused it with "Ice Ice Baby," which samples the bassline and piano motif from "Under Pressure." It also may be that Cueball is having trouble holding the boombox, hence Cueball being 'under pressure.'

These two songs are again referenced together in 1561: Water Phase Diagram, and "Ice Ice Baby" is also lampooned in 210: 90's Flowchart. It is possible that this is the same couple as mentioned in 112: Baring My Heart, as the creator of that Venn diagram reveals to their romantic partner that their feelings towards their paramour are comparable to their feelings for Vanilla Ice.

#160: Penny Arcade Parody

September 20, 2006



I CAN'T DO THIS. I CAN'T PARODY PENNY ARCADE. I'VE GOT NOTHING ON THOSE GUYS. THEY'RE A CLASS ACT, THEY KNOW THEIR AUDIENCE, THEY KNOW EXACTLY WHAT THEY'RE DOING. GABE EXPERIMENTS WITH HIS ART, ALWAYS BOLD AND FRESH WITHOUT TRYING TO PERFORM. TYCHO'S WRITING CONTINUES TO ASTOUND DAY AFTER DAY. I CAN JUST SEE HIM, READING MY UNCULTURED SWILL MASQUERADING AS HIS FLORID PROSE.

BUT HE'S NOT ANGRY, NO. HE'S SITTING AT HIS DESK SMILING THAT CONDESCENDING HALF-SMILE, THE CORNER OF HIS MOUTH BELYING THE SELF-ASSURANCE OF A WRITER WHO NEVER MISPLACES A WORD. HIS FIRM HANDS REST EASILY ON THE KEYBOARD, HIS RIGHT THUMB CARESSING THE SPACE BAR GENTLY AS I ENTER THE ROOM. HE KNOWS I'M THERE WITHOUT TURNING AROUND, AND I'M TOO NERVOUS TO SPEAK. BUT I DON'T HAVE TO; HE UNDERSTANDS. I CAN SEE IT IN THE WAY HIS EYES PLAY OVER ME, READING MY FEARS AND DOUBTS IN A GLANCE AND WASHING THEM AWAY WITH A KNOWING SMILE. THEN HE'S ON HIS FEET, HE'S IN FRONT OF ME, AND I DON'T FEEL THE ELECTRIC JOLT I EXPECTED AS OUR HANDS MEET. IT'S JUST WARM, WARM AND RIGHT. AS I SINK INTO HIS EYES, I FEEL A HAND ON MY SHOULDER, AND I SEE TYCHO SMILE AT SOMEONE BEHIND ME. GABE IS STANDING THERE, GRINNING THAT MISCHIEVOUS GRIN, AND TWIRLING HIS BELOVED CARDBOARD TUBE BETWEEN HIS FINGERS.

THE NIGHT HAS JUST BEGUN.

No one show this to Tycho's wife, okay?

Explanation

Penny Arcade is a webcomic, primarily about video games and the culture surrounding them. It is written by Jerry Holkins and illustrated by Mike Krahulik, though they are better known as their comic alter-egos: Tycho Brahe and Jonathan "Gabe" Gabriel.

This strip begins as a parody of the Penny Arcade strip, which makes fun of Sony for providing a lack-luster selection of PS3 games available on the console's launch date. However, it quickly turns into the narrator's fantasy of what might happen if Tycho discovered his spoof.

The enormous wall of text in the second and third panels may be a reference to the Penny Arcade strip "I Hope You Like Text."

The cardboard tube references one of Gabe's alternate characters, Cardboard Tube Samurai.

#161: Accident

September 22, 2006



As far as treachery-as-driving-music goes, Katamari music is matched only by Guitar Hero music.

Explanation

After someone plays a game enough, various instincts develop. One might be ready to push the right button when a right arrow comes up on screen. One might learn the tricky sequences of moves needed for a situation in the game, and find oneself doing them in another game in a similar situation. Or, as in this case, one might get used to pushing a giant ball around trying to collect smaller objects, and try doing so with your car when the game's theme song starts playing.

In the game Katamari Damacy, the player has to grow a large ball of clutter by rolling the ball over smaller objects in the playfield, which become attached to the ball, growing the clutter ball larger and larger. As the clutter ball gets larger, bigger things in the environment will begin sticking to the clutter ball instead of acting as obstacles, giving the player more clutter to grab. How big the player can get this clutter ball, or "katamari," determines how well the player does in the game, as is also mentioned in 83: Katamari.

When Katamari Damacy's theme song comes on in the third panel, Cueball begins acting out the game's premise, and drives his car into a mailbox - which "looked smaller" than his car - trying to get it to attach. This doesn't work so well outside of the game.[citation needed]

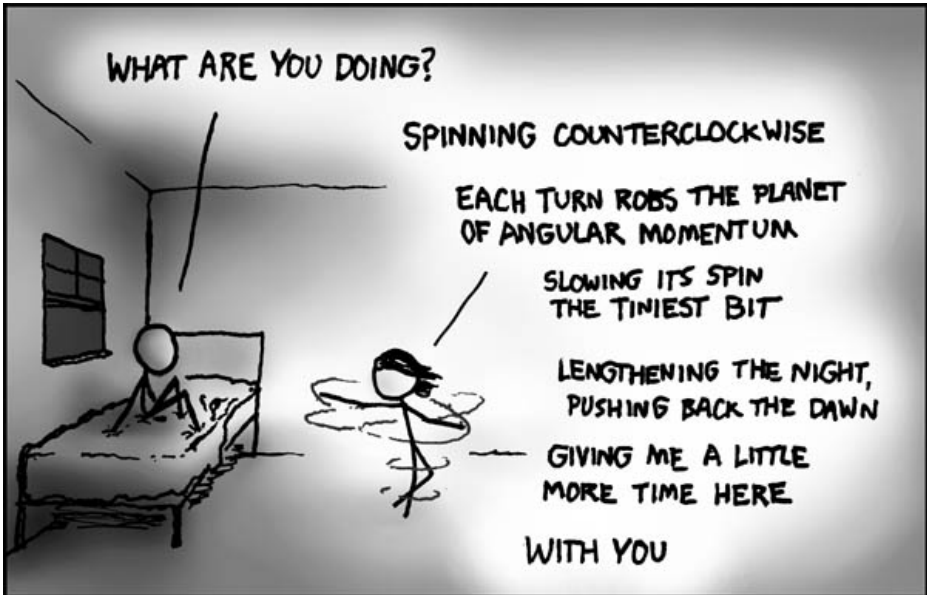
The title text implies that music used in the game Guitar

Hero is equally hazardous when driving. Anyone who's become accustomed to rocking out on a fake guitar to a particular song could find themselves involuntarily playing the air guitar when said song comes on the radio unexpectedly. Randall is pointing out that Guitar Hero-induced spontaneous air guitar performances are not safe activities while driving. Alternatively, one may try to hit all incoming objects in an attempt to mimic hitting strings of notes as they move down the fretboard, which would be immediately more disastrous. Another possibility is that the hazard is pressing several buttons repeatedly to mimic Guitar Hero, which would not only distract from driving, but also cause chaos in the car.

The theme song from Katamari Damacy is also mentioned in 851: Na.

#162: Angular Momentum

September 25, 2006



With reasonable assumptions about latitude and body shape, how much time might she gain them? Note: whatever the answer, sunrise always comes too soon. (Also, is it worth it if she throws up?)

Explanation

Every moving object, including the Earth, possesses momentum. The Earth has a very high momentum due to its large mass and high speed as it orbits the Sun. However, the comic refers specifically to the Earth's angular momentum generated by its rotation on its axis, which creates the day/night cycle. This momentum can change (increase, decrease, or halt) through the application of force from another object, which acts as the transfer of momentum from one object to another.

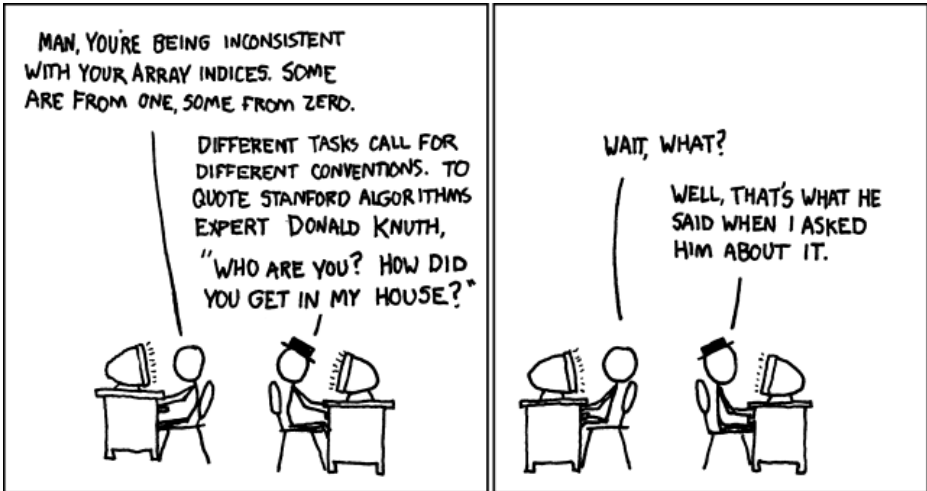
Megan is attempting to slow down the Earth's angular momentum by spinning counterclockwise (a.k.a. anticlockwise) and force her momentum onto the Earth, so she can have more time to spend with Cueball. The momentum she produces is minuscule relative to the Earth's. The attosecond she's gaining by spinning while being with Cueball is nothing compared with the seconds spent spinning. A Reddit user calculated the time Megan is gaining by spinning is less than the time it takes for light to travel across 5% of the diameter of an atom. Megan could gain a considerably larger (but still minuscule) amount of time by walking to the equator. Later, in 442: xkcd Loves the Discovery Channel, the same kind of spinning Megan is used in the first frame to tell that xkcd loves momentum. Wired calculated how much time Megan slowed down. And finally, in xkcd: volume 0, this is also calculated above the comic, giving a final value of 10-35s per turn, or 1/10000 of a quectosecond. This comic is referenced at the end of the

what if? article Longest Sunset.

The title text also jokes that the amount of time Megan is gaining from spinning might also not be worth her risk of vomiting due to the dizziness.

#163: Donald Knuth

September 27, 2006



His books were kinda intimidating; rappelling down through his skylight seemed like the best option.

Explanation

Donald Knuth is a computer science Professor Emeritus at Stanford University who is famous for writing *The Art of Computer Programming* and developing the TeX computerized typesetting system.

In computer science, an array is a structure that stores multiple values in a fixed order, and the elements are accessed by their index number. In Fortran, for instance, one writes `array(1)` to access the first element in the array. Most "modern" (read: descended from C) languages use 0 as the index for the first element in the array, but it is possible (if one is careful about it) to ignore the 0th element and use 1 as the first index. In some programming languages, such as Pascal or Ada, it is possible to select an arbitrary range of indices for each array type, so the first index might not only be 0 or 1, but also -42 or 100000. Cueball is complaining that Black Hat was not consistent in his choice of where to start his arrays. This is a valid complaint, as a lack of such consistency can make coding errors both more likely and more difficult to detect.

Black Hat cites Donald Knuth to support his rebuttal, but the quote he uses does not seem relevant. Presumably, Black Hat had illegally entered the professor's house in order to question him on indices. Donald Knuth's words were not an intellectual response to the question, but rather an alarmed response to the presence of an intruder. It is not clear if Black Hat is

aware of this.

The title text suggests that Black Hat finds Knuth's books intimidating, due to perhaps their size or complexity, to the extent that he considers breaking into Knuth's house (a risky, difficult crime) to be the better option in finding his answer. Even for Donald Knuth's books, this is very exaggerated and illogical behavior.[citation needed]

In xkcd: volume 0, four other responses are included:

- "Should array indices start at 0 or 1? My compromise of 0.5 was rejected without, I thought, proper consideration." - Stan Kelly-Bootle
- "What are you doing with that thing? Eww, it's still alive!" - Paul Graham
- "I'm calling the police once I get my cell phone back from your squid." - Bruce Schneier
- "Sorry, I thought you were Microsoft." - RMS

#164: Playing Devil's Advocate to Win

September 29, 2006

YES, FROM THE EVIDENCE IT LOOKS PRETTY LIKELY TO ME THAT WE'RE CAUSING GLOBAL WARMING ON A HORRIFIC SCALE. BUT WITH SCIENCE YOU DON'T NEED TO ARGUE. IT DOESN'T MATTER WHO WINS THE DEBATE-- IT'S ABOUT REALITY. BY JUST WAITING A LITTLE LONGER, WE'LL GET TO SEE WHO WAS RIGHT. IT FEELS UNETHICAL, BUT I FIND MYSELF WANTING TO KEEP QUIET ABOUT THE SCIENCE JUST TO KNOW FOR SURE. AS TERRIBLE AS IT SOUNDS, THE STATE OF THE WORLD ISN'T REALLY MY RESPONSIBILITY. I'M JUST THRILLED TO GET TO WATCH. IF THE SCIENTISTS ARE RIGHT -- AND IF WE KEEP PEOPLE FROM UNDERSTANDING JUST A LITTLE LONGER -- WE'LL ENJOY QUITE A RIDE. AND PRAGMATICALLY, ON THE OUTSIDE CHANCE THAT THEY'RE ALL WRONG, I GET SAVED THE EMBARRASSMENT OF HAVING SPOKEN UP.



There are so many well-meaning conservatives around here who just assume global warming is only presented as a moral issue for political reasons.

Explanation

Global warming is the rise of the average temperature of the Earth's atmosphere and oceans since the late 19th century and its projected continuation. More than 97% of scientists are sure that it's caused by an increase in greenhouse gases caused by humanity's industrialization and activities such as the burning of fossil fuels and deforestation.[actual citation needed] Losses of human food security and habitat; melting of glaciers leading to a rise in sea temperatures; and more frequent heat waves, droughts, and species extinctions are just some of the many effects of global warming.[actual citation needed]

Yet, despite the unequivocal nature of climate change, it's a hot-button political topic in the United States, with many conservatives denying its existence, arguing that it has natural causes, or claiming that global warming could be a good thing. Liberals counter by saying that conservatives are claiming these things because they're in bed with the oil companies, and by denying the existence of global warming, they're saved from having to do anything about it. It's such a controversial topic in the U.S. that, in this comic, Cueball says he's decided to keep his mouth shut about the whole thing. He has withdrawn from the debate because it doesn't matter if he wins the debate or not — science doesn't care about who got the last word. If humanity reaches the tipping point and one day can't do anything to stop global warming, Cueball will find it interesting to watch exactly what happens. And if it turns out that the scientists are

wrong, he won't feel embarrassed that he's been making a big deal about it this whole time.

In the title text, he touches on the political side of global warming, saying that there are many well-meaning conservatives out here who honestly believe that global warming doesn't happen, and that liberals only bring it up to have a moral issue to attack conservatives with.

This was the first direct reference to global warming in xkcd, but since then, climate change, with an emphasis on global warming, has become a recurring theme in xkcd. Seems Randall would no longer like to be on this ride, especially with the comic 1732: Earth Temperature Timeline released almost 10 years after this one.

#165: Turn Signals

October 02, 2006



I'm not very good at meeting people.

Explanation

Turn signals are designed to flash between 60 and 120 times per minute. Most turn signals are driven by an electromechanical device. Due to manufacturing tolerances, battery state of charge, ambient temperature, and various other factors, two different turn signals rarely flash at the same rate, even among cars of the same make and model. Having two cars with turn signals flashing at the same rate would be a rare event.

Cueball notices this event, and expresses his excitement to the driver of the other car, despite being stopped at an intersection. The other driver is confused by this. Turn signal frequency is something that most people don't take notice of.[citation needed] Cueball, however, takes it as an opportunity to strike up a conversation and make a new friend.

The beat frequency is the rate at which two frequencies transition from being in phase with each other to being out of phase and then to being in phase again. In other words, two turn signals that begin by flashing together will transition to flashing opposite each other and then back to flashing together, and the rate at which this process cycles is the beat frequency. Because the beat frequency is simply the difference between the two turn signal frequencies, two turn signals whose frequencies are closer together will take longer to pass through the in-phase/out-of-phase cycle, and two signals whose frequencies are identical would take an infinite time (i.e.,

their relative phase never changes). The beating of turn signals is an easy phenomenon to observe when one is stopped at a traffic light with nothing to do but watch the flashing turn signals, and it is the lack of beating that Cueball noticed and excitedly reported.

The title text refers to the fact that this is probably not a good strategy for making friends, and it could suggest that the character Cueball may be Randall.

#166: Misusing Slang

October 04, 2006

THE BEST PART OF GETTING
OLDER IS GONNA BE
INTENTIONALLY MISUSING SLANG
AROUND TEENAGERS JUST
TO WATCH THEM SQUIRM.

OH MAN, THAT SONG
IS SO PWNED!



It slowly dawns on us that our parents knew exactly what they were doing.

Explanation

Randall expresses excitement for the time in the future where he can intentionally misuse modern-day slang in order to make nearby teenagers feel uncomfortable. He illustrates this by using the word "pwned," the past tense of "pwn" (from "own," as in to defeat completely): "The noob was pwned by the pro." In this comic, Randall uses "pwned" as "owned", but he misuses the word to say that the song is owned by many people.

Many teenagers believe their parents to be not "with the times," however Randall suggests that parents actually do know what the words mean, but are acting otherwise in order to mess with their heads for their personal amusement. The title text reinforces this, as every generation has had some form of slang that they used, and it could be possible that this practice has been continued for a good while. It also suggests that the parents of teenagers may be "pwning" their children by intentionally misusing these modern-day slang.

#167: Nihilism

October 06, 2006



Why can't you have normal existential angst like all the other boys?

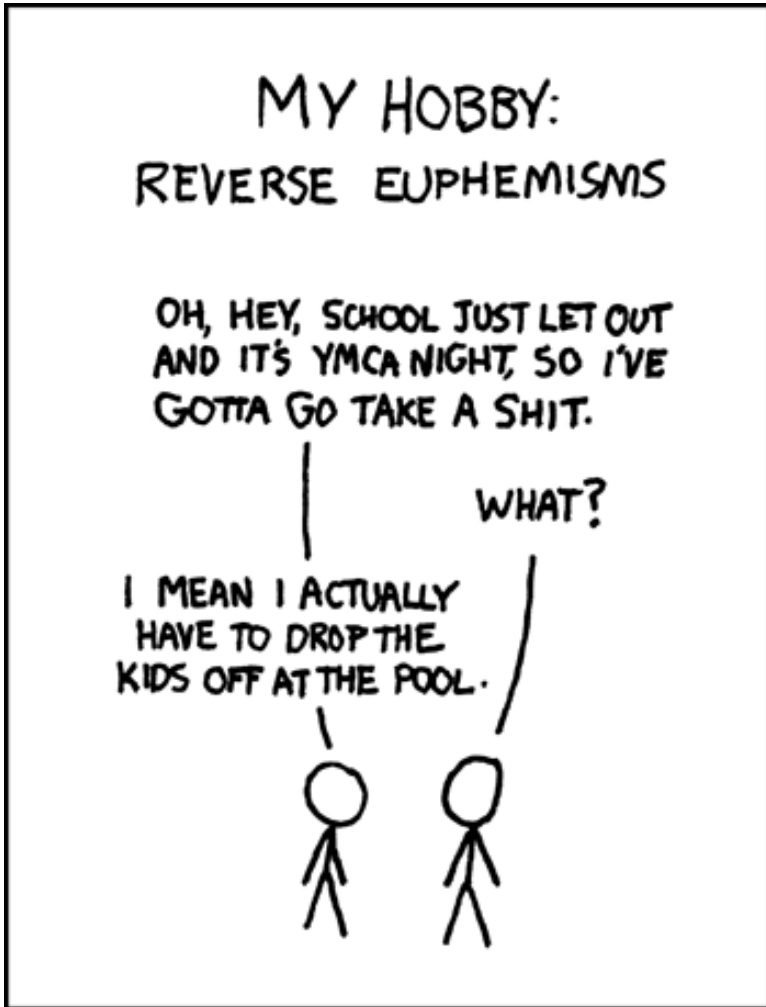
Explanation

It is argued by some that atheism leads to nihilism. One rebuttal would be to reject the premise that there is no purpose outside of fulfilling divine intention, but Randall instead rejects the premise that nihilism ought to be burdensome. As a result, Beret Guy resolves that, if everything is ultimately meaningless, then it would be more fun to spend one's meaningless existence having fun rather than constantly moping. The presence of squirrels may relate to Beret Guy's head's resemblance to an acorn.

As reinforced by the title text, the complete lack of angst on Beret Guy's part is off-putting to other nihilists.

#168: Reverse Euphemisms

October 09, 2006



I'm still waiting for a chance to use 'I have to see a man about a horse'.

Explanation

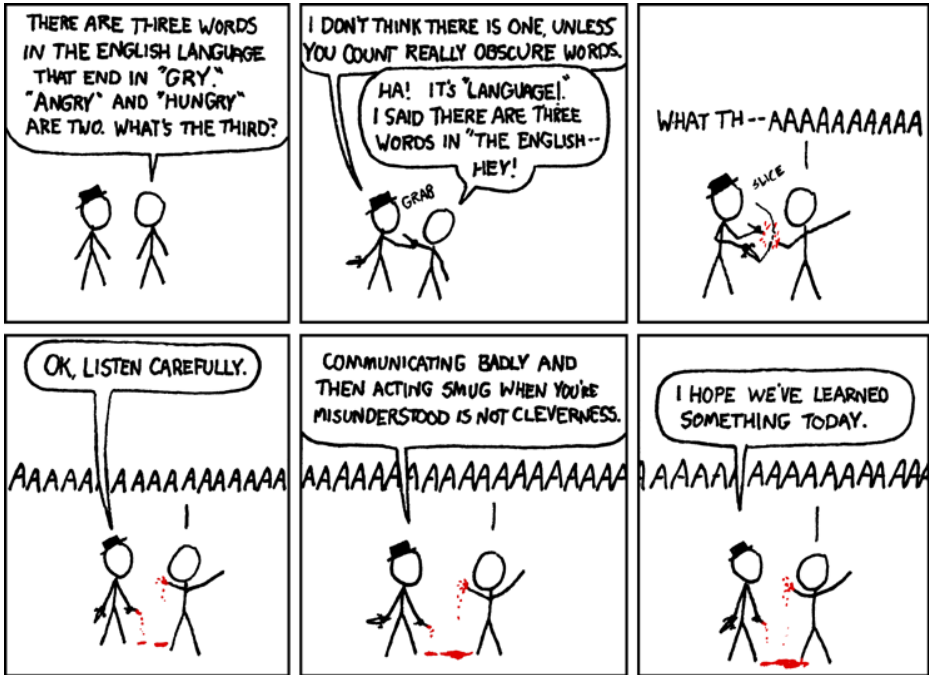
Euphemisms are figures of speech used in place of more offensive terms. In this comic, Cueball uses swear words in the place of benign terms, inverting the typical usage of euphemisms. To "drop the kids off at the pool" is a euphemism meaning to "go take a shit." In this case, however, Cueball actually has to drop kids off at the pool but instead uses "go take a shit." Cueball is using the euphemism in reverse, hence the title.

In the title text, the figure is waiting for a situation in which he has to see a man concerning a horse, as this relates to another euphemism meaning to urinate. It can be assumed that, when telling someone about seeing the man about the horse, he would say "...then I had to go take a piss."

This is not to be confused with the opposite of a euphemism called a dysphemism, despite this comic being the image used for Unusual Dysphemism on TV Tropes.

#169: Words that End in GRY

October 11, 2006



The fifth panel also applies to postmodernists.

Explanation

This is a reference to a famous joke (see the first of the meta versions under the wiki link), mistold in the above comic.

The original, correct telling of the joke is:

Phrased this way, the intended answer is "language" because "There are only three words in (the phrase) 'the English language' ." "Think of words ending in '-gry' ..." is used as misdirection.

Cueball tells this joke. (The comic unintentionally misphrases the original riddle; see below.) When Cueball attempts to say the answer is "language" and act smugly about it, Black Hat is unimpressed and cuts off Cueball's forearm, explaining that communicating badly is not the same as cleverness. Black Hat's point is that the riddle's "cleverness" depends on misleadingly implying that "three words" refers to words ending in "-gry," rather than the phrase "the English language." Black Hat does not seem to agree that this riddle is clever.

While answering reader questions at an event (Youtube video), Randall clarified that his point about bad communication applies to the riddle in general. However, a secondary interpretation, which people spotted and wrote to Randall about, is that Cueball failed to tell the joke correctly and Black Hat is angry that Cueball botched the joke. As above, the joke is supposed

to go, "There are only three words in 'the English language,'" while only implying that you meant "words that end in '-gry.'" However, Cueball instead states, "There are three words in the English language that end in '-gry,'" and by doing so has ruined any chance of Black Hat determining the correct answer; now, "three words" can't refer to the correct answer "the English language" because Cueball has accidentally used a longer phrase instead. Thus, Cueball has communicated badly both intentionally and unintentionally.

In any case, no matter how annoying Cueball's smugness, Black Hat responding by cutting off Cueball's forearm is an overreaction [citation needed] (while his calm demeanor in doing so is an underreaction to the overreaction). Additionally, his calmly-made point about the riddle is likely not to be understood by Cueball, who can only focus on his debilitating injury. Black Hat has, ironically, failed to communicate his point about proper communication, although given Black Hat's personality he likely doesn't care, and may even have intended the irony.

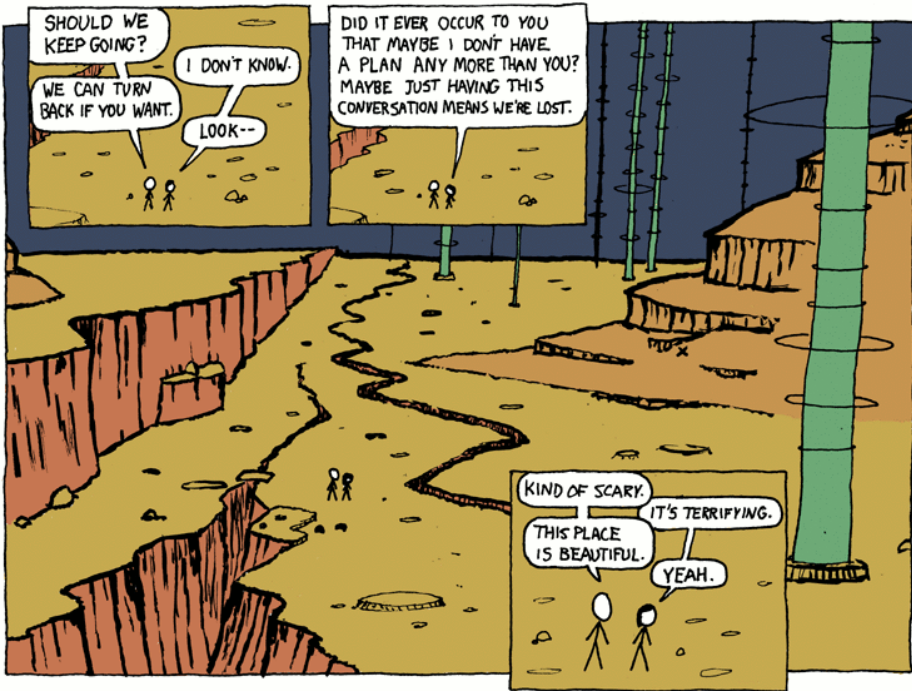
As Black Hat mentioned in the comic, if you count obscure and archaic words, there are additional English words that end with "-gry." Some are listed here. The word "hangry", a new solution, was only added to Webster's and the OED dictionary in 2018, long after the riddle was invented, although its use was established to go as far back as 1918.

The title text refers to postmodernism, a philosophy and

corresponding art movement. Postmodern music is often minimalist, as exemplified by the weird sounds of Philip Glass and Steve Reich, and postmodern visual art saw trends such as lowbrow and installation art gain attention. Apart from a rejection of modernism, however, it is difficult to outline postmodernism to justify the strange works of art. Deconstruction is another important concept, but it is difficult to describe the process. In short, postmodernists make art that no one understands and may act smugly about it, but they do not adequately explain what their art means, or it doesn't really mean anything. In other words, there is nothing to understand. Thus, Black Hat's statement, that such practice is not "cleverness," applies to them as well.

#170: Turn Back

October 13, 2006



I hear that these days Bill Watterson is happy just painting in the Ohio woods with his father and doesn't get any mail or talk to anyone.

Explanation

Calvin and Hobbes was a daily comic drawn by Bill Watterson, published between 1985 to 1995. It followed the adventures of a young boy named Calvin and his tiger, Hobbes. The frequent themes of spontaneity, beauty, and adventure that characterize many of Calvin's conversations with his friend Hobbes can also be seen in this exchange between Cueball and Megan as they explore a landscape reminiscent of Calvin's daydreams of intergalactic adventure. The cluelessness and simultaneous wonder that Cueball and Megan feel at their surrounding landscape mirror Calvin's inexperience and curiosity that he exhibits in Watterson's comic.

The title text, while unclear if it were actually true or not, reflects Mr. Watterson's reclusive nature. He has never licensed his characters for any use outside of reprints, and he stays out of the public spotlight. Thus, it is very probable that it was true at the time of this comic. The title text also serves to point out the connection between Watterson's work and this comic.

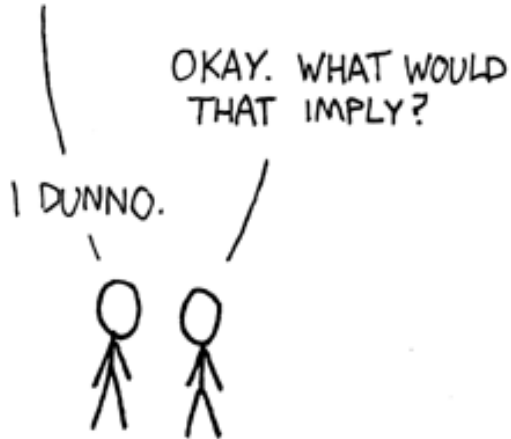
However, in more recent years, Watterson has come out of his shell a bit. He collaborated with Stephan Pastis, creator of *Pearls Before Swine*, to do a story arc where a second grader was a better artist than an actual cartoonist. Stephan Pastis later wrote of the experience: "I began to wonder if [Bill Watterson] even had electricity, then I remembered we were using e-mail to communicate."

#171: String Theory

October 16, 2006

STRING THEORY SUMMARIZED:

I JUST HAD AN AWESOME IDEA.
SUPPOSE ALL MATTER AND ENERGY
IS MADE OF TINY, VIBRATING "STRINGS."



This works on pretty much every level.

Explanation

String theory is a theory in theoretical physics for explaining how the universe works. It is a theory trying to explain everything belonging to our universe; specifically, it aims to unite general relativity and quantum field theories.

When a new theory is thought up, the theorists will usually supply some predictions, measurable by experimental physicists. String theory's predictions, however, are few and extremely difficult to test; although its inception was over forty years ago, string theory has yet to be experimentally tested.

Randall is unimpressed with string theorists (for another instance of this, see the punchline to 397: Unscientific). String theory has not provided any useful new knowledge to engineering science as quantum physics has, and lacks the imagination-stirring philosophical implications that the general population associates with other fields — for example, quantum scientists have proven predictions like tunneling, used by modern electronic devices, and relativity is relevant to modern systems like GPS navigation. String theory either hasn't reached that stage yet or cannot.

In the title text, Randall points out that string theory is so technically difficult that, at essentially every level (except, presumably, the very top), this explanation is as good as it gets.

#172: Skateboarding is Not a Crime

October 18, 2006



WHEN I'M PRESIDENT, SKATEBOARDING
WILL STILL BE LEGAL, BUT DISPLAY OF THOSE
STUPID STICKERS WILL BE A FELONY.

'Arrest me, I'm a skateboarder' is an even more obnoxious
variant.

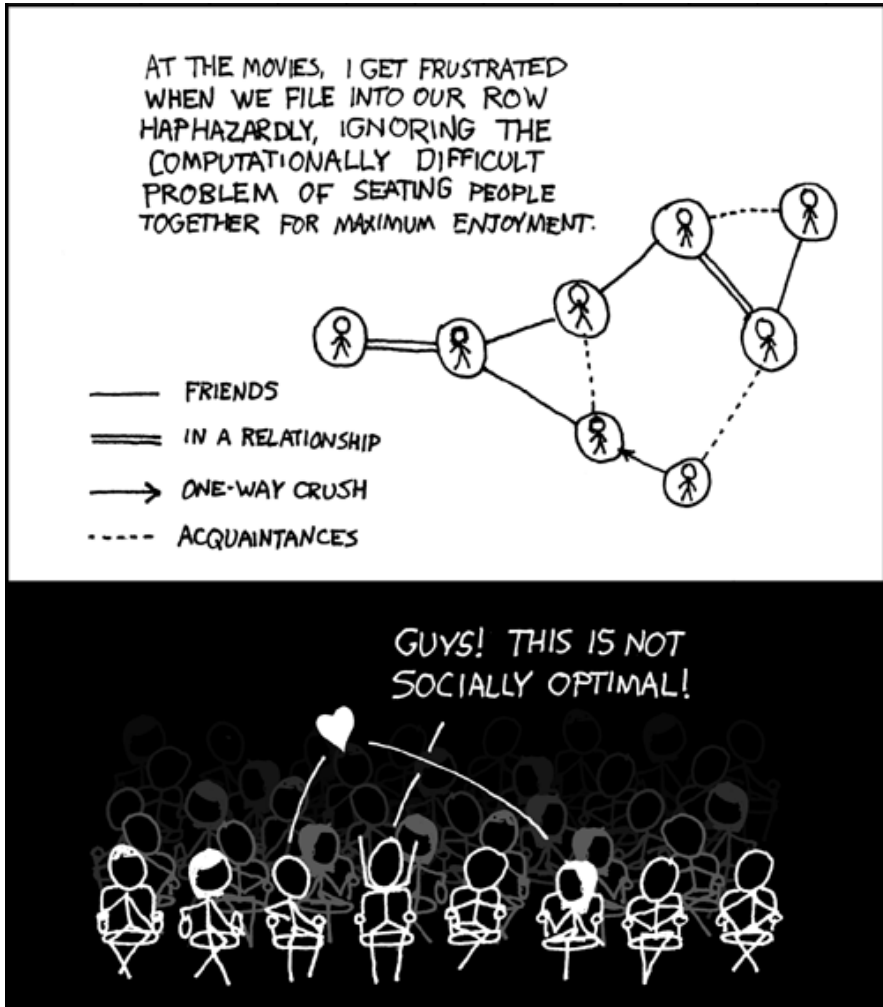
Explanation

The skateboarding subculture has taken up the phrase "skateboarding is not a crime" in protest of how many cities have banned skateboarding in certain areas, such as parks. Randall apparently really does not like these stickers and states that when he becomes president, any and all displays of stickers bearing the phrase (like the one on the locker in the comic) will be considered a felony, though skateboarding itself will still be legal.

The title text also shows another protest phrase, "Arrest me, I'm a skateboarder," that Randall hates even more than "skateboarding is not a crime."

#173: Movie Seating

October 20, 2006



It's like the traveling salesman problem, but the endpoints are different and you can't ask your friends for help because they're sitting three seats down.

Explanation

At the time of writing in most movie theaters in the US, seats were not reserved. That is, tickets were sold by screening without seat assignment, so an entering patron can take any vacant seat. Therefore, a group of incoming patrons may walk in a column and take a section of consecutive seats in a row, each person taking one next to the person in front of them. The order of these people is thus determined by the order in which they walk into the theater, which is in most cases random. After this comic was published, some theaters around the U.S. began to sell movie tickets with reserved seats, both online and when purchased at the theater. When you buy your ticket, you also specify which seat you would like to sit in. Therefore, if you buy multiple tickets, you can select seats that are adjacent to each other.

Cueball is upset at the way he and his friends have sat down at the movie theater. Part of the problem is that two people who are apparently in a relationship do not sit together. He therefore tries to use a social graph to calculate the best way for him and his seven friends to sit in a row, while taking into account all of the social connections among them. In mathematics, this type of problem is called combinatorial optimisation. The most popular example, the traveling salesman problem, is referenced in the title text, as well as in comics 287 and 399.

The title text shows that another part of the problem is

that Cueball's friends, who could have helped him calculate a solution, are each sitting three seats away from him, and so he cannot ask them for help.

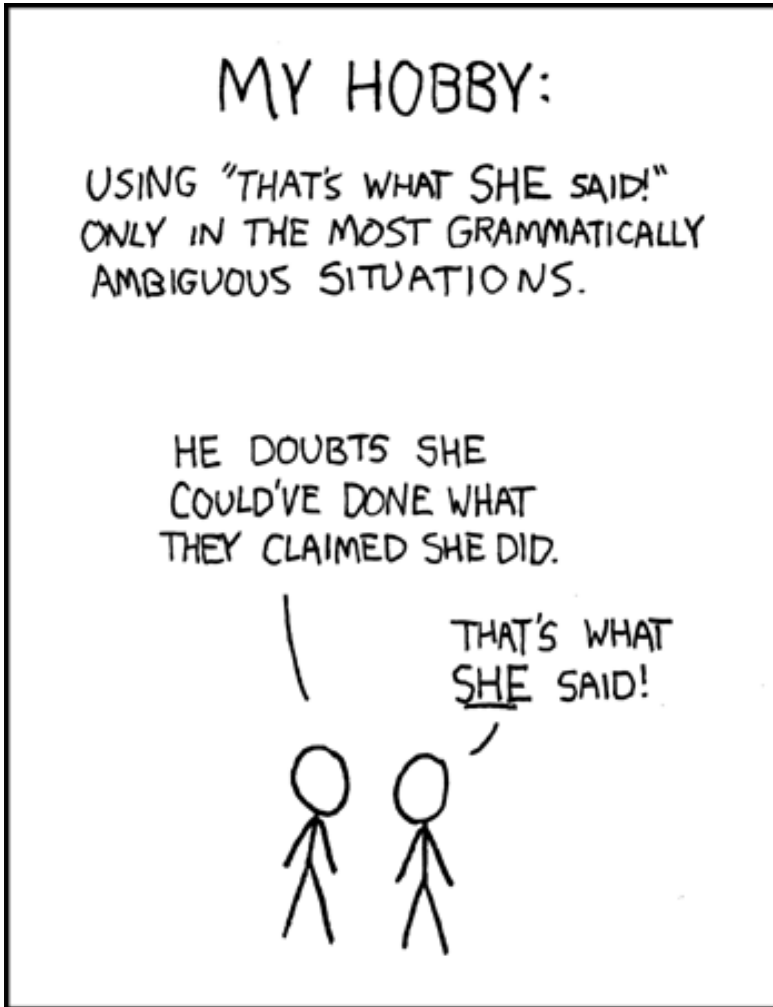
Solutions[edit]

User:Squidy9002 wrote a program to find the best option through brute force, ignoring the one-way crush. According to their program, the best order is: 8, 5, 7, 4, 3, 6, 2, 1.

Two other hypothetical solutions for the specific problem proposed in the comic are here:

#174: That's What SHE Said

October 23, 2006



Yes, I mean she said that during sex. Yes, it was a little weird.

Explanation

This is another comic in the My Hobby series. "That's what she said!" is a phrase used in the US in response to an unintended sexual innuendo, similar to the UK phrase "said the actress to the bishop." An example usage might look like the following:

In this example, the innuendo is that A was referring to a furniture component (say, a bolt too large to fit into the hole that was drilled in the factory), but the phrase might also refer to a human penis. While popular for a while, the phrase is considered puerile and cliché nowadays, so it isn't often used except in mockery.

In this case, no sexual innuendo is intended; instead, the phrase is used to maximize the ambiguity of the statement. Ambiguity is when a statement could mean more than one thing. In English, it is often created as a result of pronouns like "he" and "they," which might potentially refer to many different things in context. Here, "that's what she said!" could mean several things, because "that" and "she" could refer to multiple parts of the sentence:

- Some woman said the entire statement.
- Some woman said "I could've done what they claimed I did."
- Some woman is part of the "they" that claimed something about some other woman.

- Some woman reported that some unknown man doubts that another woman did something that other people claimed that the other woman (or yet another woman) did.

Another explanation would be that the intense grammatical ambiguity of the situation allows for any type of interpretation of the situation... even a more "perverted" interpretation. Taken more literally, the "she" in "that's what she said!" could be a hypothetical woman who is known for saying crazy things, thus the grammatically ambiguous statement reminds the speaker of this hypothetical woman.

The title text turns this back around, saying that there is actually a sexual innuendo in the statement: apparently the girl in question said this during sex. Since all of these possibilities are highly unusual things to say during sex,[citation needed] the observation in the second sentence is accurate.

#175: Automatic Doors

October 25, 2006

WHEN I WALK PAST AN AUTOMATIC DOOR
AND IT OPENS FOR ME, I WORRY THAT IF
I DON'T GO IN I'LL HURT ITS FEELINGS.



OH, UM, I'M SORRY,
I WAS JUST... UM...
I GUESS I CAN HANG
OUT FOR A BIT.

I hope no automatic doors I know read this. I would be so embarrassed.

Explanation

Cueball has an uneasy suspicion that the automatic doors may have feelings, possibly due to their apparent sentience. This assigning of human characteristics to non-human things such as the doors is called anthropomorphism. Cueball extends the premise that the doors have feelings to those feelings being hurt by his not entering the opened doors. This is analogous to the social faux pas of ignoring someone who has waved to you, or purposefully failing to acknowledge someone who is trying to get your attention.

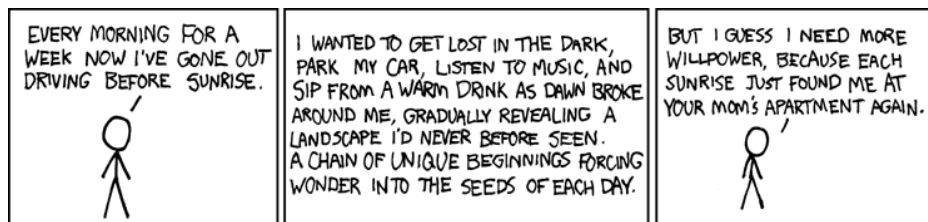
The anthropomorphized doors are much like those in the starship *Heart of Gold* in Douglas Adams' *Hitchhiker's Guide to the Galaxy*. In the story, the characters find a brochure describing the ship, which states that "All the doors in this spaceship have a cheerful and sunny disposition. It is their pleasure to open for you, and their satisfaction to close again with the knowledge of a job well done." Such doors would not be given the "satisfaction" of the "knowledge of a job well done" if the figure passes close enough to trigger the doors, but does not actually go through them.

In the title text, it is revealed that Cueball has made the acquaintance of a number of automatic doors and possibly hung out with them only because he doesn't want to hurt their feelings. His being embarrassed about hurting the feelings of any automatic doors who happen to read the comic and thus find out that what they

thought was a genuine friendship was only Cueball trying not to hurt their feelings, in fact should more likely be embarrassment over making friends with mechanical doors who he believes have feeling that can be hurt in the first place.[citation needed]

#176: Before Sunrise

October 27, 2006



It's an amazing time of day; the light is great for photography.

Explanation

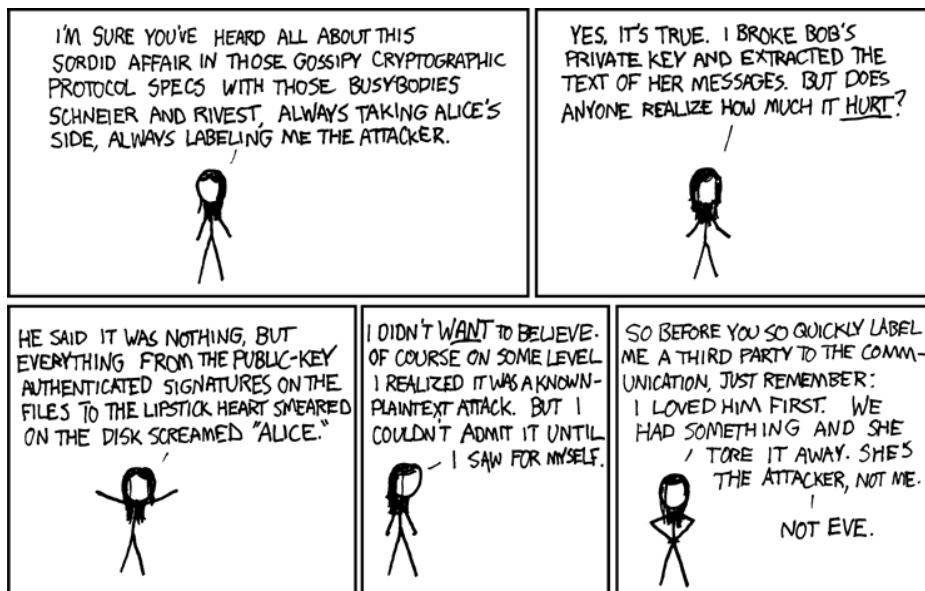
This is another example of Randall's propensity towards "your mom" jokes. The second panel contains an eloquent prosaic description of an idyllic sunrise over an unfamiliar landscape analogizing the uncertainty and excitement of the life that lies ahead. This is designed to put the reader off-guard for the "your mom" stinger in the third panel.

Cueball wants to settle down on his own, but every time when he tries, he still ends up at the reader's Mom's place (as is customary in such jokes).

In photography, the term Golden Hour is used to describe the hour after sunrise (and also the hour before sunset), due to the good lighting conditions at those times. In the title text, you could initially believe that Cueball is using these early morning trips to capture beautiful photographs of the scenery, until it turns out that in fact the photos were of the reader's Mom (and likely risqué in nature).

#177: Alice and Bob

October 30, 2006



Yet one more reason I'm barred from speaking at crypto conferences.

Explanation

Any good cryptography presentation will include at least one story about Alice and Bob. They are the canonical "protagonists" of the crypto world, frequently used in illustrations to demonstrate how a cryptographic system works. (The names were mostly chosen to abbreviate to A and B, as well as being of different genders so that they can be distinguished by pronouns alone.)

Here, Randall casts the story in a different light. Instead of Alice and Bob being perfectly innocent people who just want to communicate in private, Bob is actually having an affair with Alice, and his former partner, upset, cracked the encryption to see what the message contained. Nevertheless, the "gossipy cryptographic protocol specs" all took Alice's side (since the goal of any good crypto system is, of course, to succeed in this struggle).

The rest of the comic makes a few other allusions to cryptography:

- Bruce Schneier and Ron Rivest are two well-known cryptographers. They have written lots of papers that use Alice and Bob as examples (Alice & Bob fanfic, if you will).
- Public and private keys are two extremely large numbers, chosen such that there's a mathematical relation between them, and yet it's extremely hard (i.e. would take many billions of years) to derive the private

key from the public key. They're the basis of asymmetric cryptography. A public-key authenticated signature is a way of cryptographically proving that a certain person created a file, as only that person could have possibly generated that signature. One downside is that anybody who has the public key can verify who a message is from, so it removes plausible deniability; Bob's partner clearly knew that Alice and Bob were communicating, on disks marked by lipstick hearts no less.

- A known-plaintext attack is a type of cryptographic attack where at least part of the plaintext (i.e. unencrypted text) of a message is known, and the attacker wants to figure out the keys used to encrypt the message, or at least decrypt other ciphertexts that use the same key. The woman is saying that she should have known all along that the messages were adulterous in nature.

Finally, in a twist ending, the girlfriend is revealed to be none other than Eve, the eavesdropper, who is also ubiquitous in Alice and Bob stories. Hell hath no fury, indeed. This also may be an allusion to B and E, or breaking and entering, as Eve may have done to get Bob's key.

The title text continues the theme of Randall getting barred from speaking at conferences due to his unusual take on certain topics.

To further spice things up, there are many other characters in the Alice/Bob canon, including Mallory,

the malicious attacker, who wants to actually alter the message with nefarious intent; Craig, the cracker, who doesn't particularly care about the message but does care about the passwords used; Plod, a law-enforcement officer attempting to access keys or data; and Chuck, a third party in the communication who secretly has a villainous intent.

#178: Not Really Into Pokemon

November 01, 2006

I HAVE FOUND THE PERFECT PHRASE FOR
CONDESCENDINGLY DISMISSING ANYTHING:

HAVE YOU SEEN THE
NEW UBUNTU RELEASE?



As of this writing, Ubuntu 6.10 and Firefox 2.0 have left my computer a complete mess.

Explanation

Pokémon is a popular franchise that includes 5 children's animated television shows, a collectible card game, and a whole series of video games. The premise is that a young "trainer" goes out to explore the world and catch Pokémon: fanciful wild creatures that come in many varieties, ranging from armoured dinosaurs that have drills for horns to robotic bugs that change their type depending on the items they are holding. When the trainer comes across wild Pokémon or other trainers, they use their Pokémon to fight each other.

In this comic, Randall claims that "I'm not really into Pokémon" can serve as an all-purpose phrase of condescending dismissal. The implied insult to the thing being dismissed can include:

- Childishness. Although it does have a significant adult following, the Pokémon franchise was and is mainly targeted at children.
- Frivolousness. The essential goal of Pokémon games, summed up in the slogan "Gotta Catch 'Em All," is to catch Pokémon for the sake of having them.
- Commercialism. Pokémon is a sprawling franchise that periodically releases new iterations, which (at least to a non-fan) can seem much like more of the same, only existing to make money. At present, the Pokémon universe contains over 1,000 different types of Pokémon.

- Absurdity. As mentioned, the names and designs of individual Pokémon can be quite fanciful; "absurd" would be a more unkind way to put it.

The example in the comic is Black Hat dismissing Ubuntu, an open-source computer operating system. Ubuntu may have been particularly chosen as specifically suitable for the "Pokémon dismissal" for reasons such as:

- The name "Ubuntu," which (like the names of Pokémon) can sound strange or silly. Individual Ubuntu releases also have animal-themed names (like "Hoary Hedgehog" and "Saucy Salamander").
- The name "Ubuntu" sounds like a Pokémon region.
- Its release schedule; new Ubuntu releases come out every six months, which might (like Pokémon) be unfavourably described as putting out more of the same in new packaging.
- A notion that people try Ubuntu (and other Linux distributions) just for the sake of doing so, like catching all the Pokémon.

The title text refers to the complications that new software releases can have on computers, especially if either the release is an alpha or beta release, or if the computer is rather old. Randall specifically mentions Ubuntu 6.10 and Firefox 2.0, both of which were officially released around two weeks after this comic was posted, so the versions causing problems were certainly pre-release editions. While Randall does not detail any specific issues, the title text may paint a picture of two

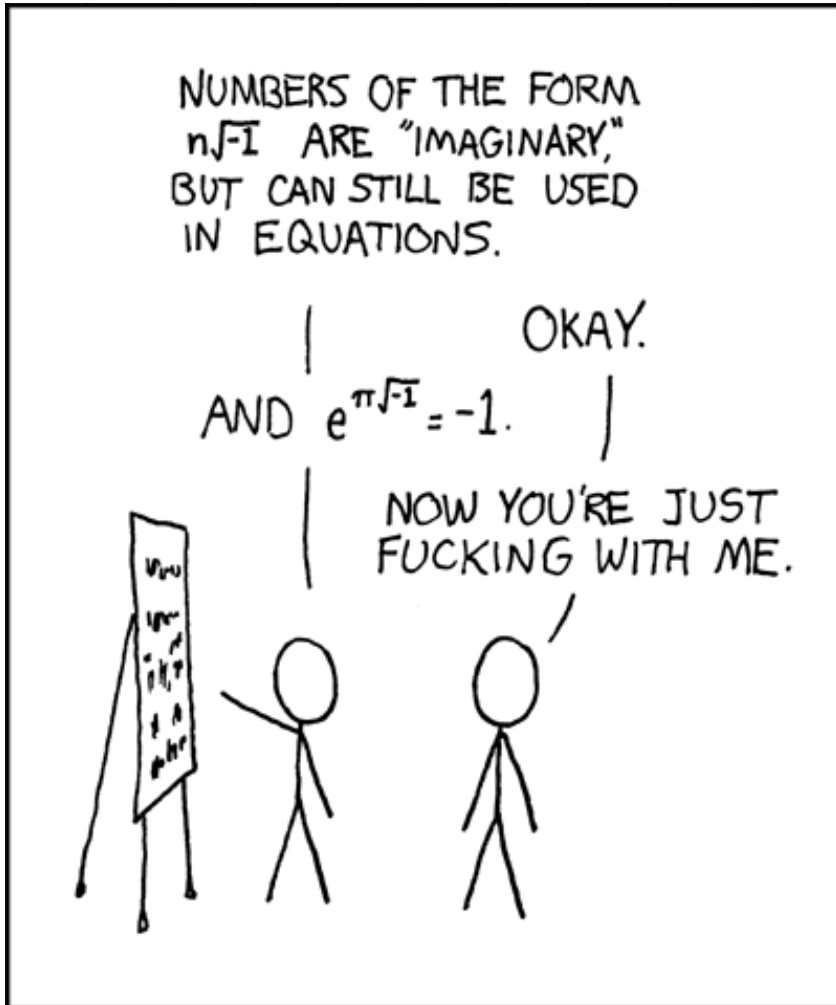
computer programs fighting each other inside the computer and making a mess in the process, as if they were Pokémon.

Other comics which advocate using catch-all phrases as standard responses for any comment:

- 174: That's What SHE Said
- 1656: It Begins
- 559: No Pun Intended
- 1022: So It Has Come To This
- 1215: Insight
- 1627: Woosh

#179: e to the pi times i

November 03, 2006



I have never been totally satisfied by the explanations for why e to the ix gives a sinusoidal wave.

Explanation

The comic largely references Euler's identity. This identity states that $ei\pi + 1 = 0$. Therefore, $ei\pi = -1$.

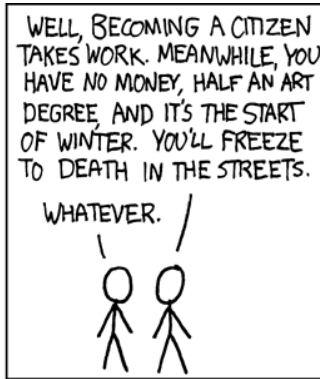
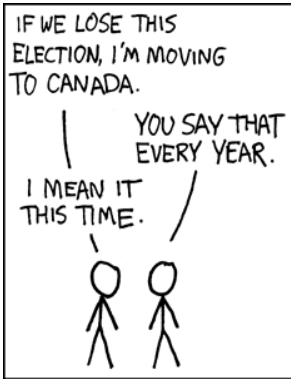
The humor from this comic is because of the seemingly arbitrary relationship between e , π , and the identity of i (the square root of -1). e is the mathematical identity of which the derivative of e^x with respect to x is still e^x , while π is the relationship between the circumference of a circle divided by its diameter. Taking these two values and applying them to the value of i in such a manner makes it seem counter-intuitive that it would yield -1 from basic analysis. The above linked Wikipedia page goes into good detail of how to derive this identity, as does this YouTube video. If you know some basic calculus, then this video gives a geometric intuition.

The title text refers to how Euler's identity is called upon in complex form (separating real and imaginary numbers): $eix = \cos(x) + i \sin(x)$.

From xkcd: volume 0:

#180: Canada

November 06, 2006



IT'S ALL REAL

Explanation

Canada is the country north of the USA. During political seasons, partisan voters often threaten to move away if their side loses. For Americans, this often comes to claims of moving to Canada.

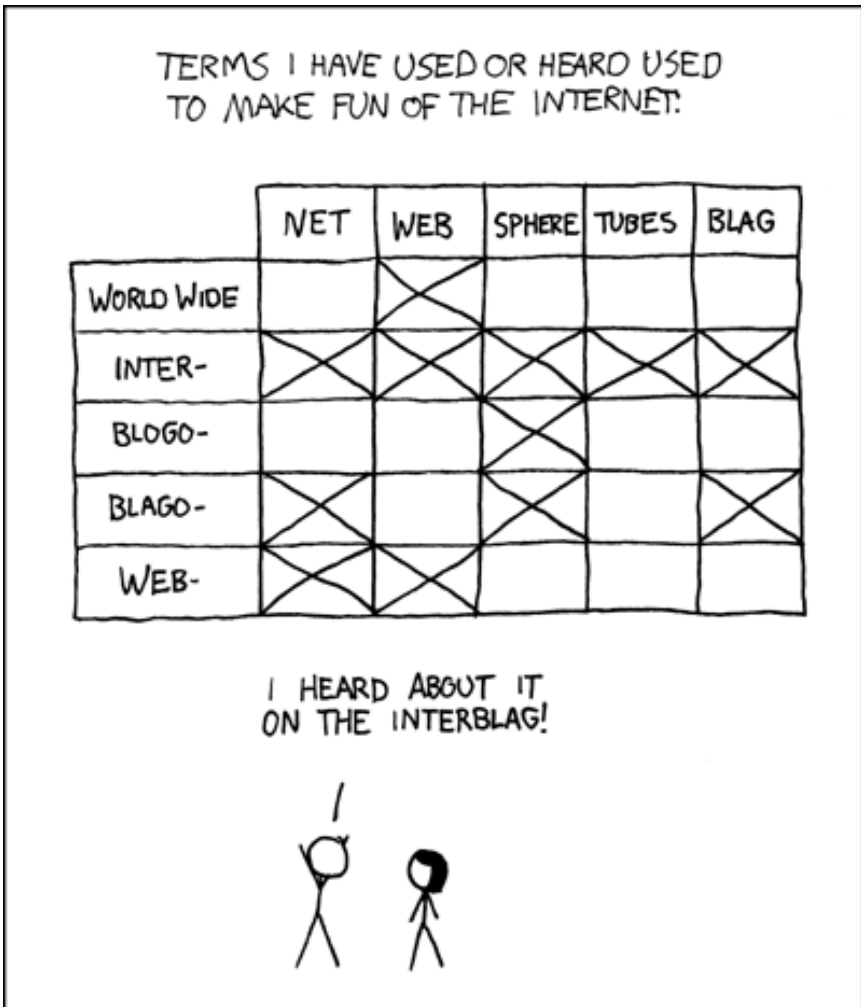
The punchline references the tagline "If you die in the game, you die in real life" from the 2006 horror movie *Stay Alive* (released a few months before this comic), where people die in real life soon after their characters are killed in a certain video game. The idea was also present in *The Matrix*: "If you're killed in the Matrix, you die here?" There is also a Yahoo Answers thread about this question.

Taken literally, it is obviously true, as Canada is, arguably, part of reality.[citation needed] It really is "all real" as the title text says.

From xkcd: volume 0:

#181: Interblag

November 08, 2006



Sometimes I hate the internet. Sometimes it makes me happy that 'The Tubes' has become slang for the internet so quickly.

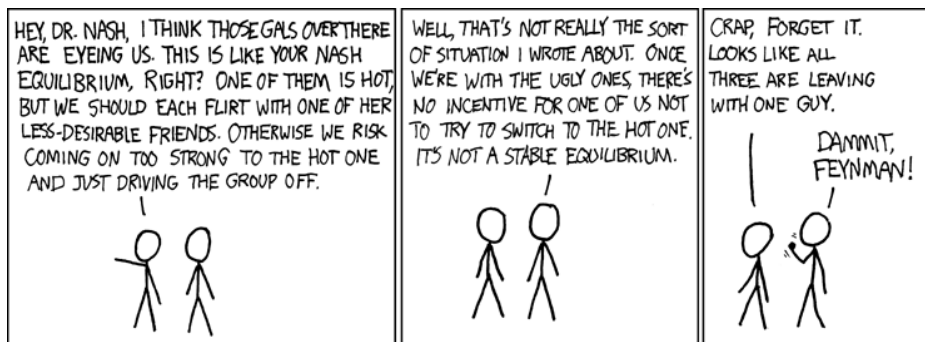
Explanation

The comic parodies the habit of word coining on the internet, as well as the enthusiasm for modern sounding terms in the IT world in general. Common examples include the shortening of "weblog" to "blog," while the entirety of blogs is referred to as the "blogosphere." The internet itself is sometimes called "The Tubes," a term derived from Senator Ted Stevens's infamous statement "Series of Tubes." The suffixes "-net" and "-web" are often used to denote a certain interconnection of information on the internet, as well as to make products and brands sound fit for the 21st century.

The matrix shown in the comic spoofs the internet jargon by combining common prefixes and suffixes to new and impressive but meaningless words. The culmination of nonsense is, as indicated in the transcript, the term "blagoblag". This is also a sideswipe at 148: Mispronouncing, where "blag" was introduced as a substitute for the usage of "blog". The official weblog of the xkcd webcomic is called "blag". The prefix "blago-," meanwhile, was used again in comic 239: Blagofaire.

#182: Nash

November 10, 2006



Maybe someday science will get over its giant collective crush on Richard Feynman. But I doubt it!

Explanation

The first panel references a scene in the movie *A Beautiful Mind* in which Dr. John Forbes Nash, Jr. comes up with his famous concept of Nash equilibrium when he realizes that they get suboptimal results if all the guys go after the same hot girl. The second panel deconstructs the idea as Dr. Nash point out that staying away from the hot girl does not actually constitute a stable Nash equilibrium. The third panel has physicist Dr. Richard Feynman render their entire discussion a moot point by getting all the girls while the mathematicians ponder optimal strategies.

In fact, the situation in the comic is a great example of what a Nash equilibrium is not. The only reason that one player (pun intended) wouldn't try to go for the hot girl is if they were afraid that someone else would go for the hot girl as well. However, in a Nash equilibrium, each player assumes that the other players won't change their strategy, and concludes from this assumption that their own strategy shouldn't change either. If all of them have the strategy of flirting with the hot girl's friends, and all of them are assuming (incorrectly) that the others won't change their strategies, then they all would change their strategies simultaneously, breaking the equilibrium.

Feynman shared the Nobel Prize in Physics in 1965 for his important work in quantum electrodynamics. Feynman wrote popular books and gave public lectures. These presented his work in advanced theoretical physics

to the general public, a practice that was not very common at that time. One of his more famous books, *Surely You're Joking, Mr. Feynman!* gives many personal anecdotes from his lifetime, and it contains a passage giving advice on the best way to pick up a girl in a bar.

The aforementioned public books and lectures brought him great attention in the media, and his exceptional results in physics coupled with this have led to his getting an almost cult-like following among scientists. He's also (largely due to his book) known as something of a womanizer, thus why he would take several women home at once.

The title text explains that Randall wonders whether this "collective crush" (crush as in love affair) will fade away one day, but he doubts it. Great respect for Feynman continues to this day, even though he died on February 15, 1988.

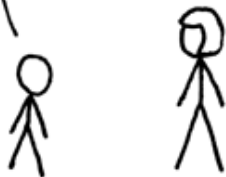
#183: Snacktime Rules

November 13, 2006

MY DAD WAS ALWAYS THE ONE WHO TAUGHT ME ABOUT SCIENCE,
BUT LOOKING BACK, I'M STARTING TO REALIZE HOW MUCH MY
NERDINESS WAS INFLUENCED BY MY MOM.

MOM, CAN I HAVE A SNACK
IN MY ROOM BEFORE BED?

NO, DEAR. YOU KNOW YOU ONLY GET
THAT PRIVILEGE WHEN YOUR AGE IS
ONE LESS THAN A MULTIPLE OF THREE.



I am not making this rule up. Although my mom wants you all to know it made perfect sense at the time.

Explanation

The comic shows Randall's mother telling Randall that he can have a snack in his room before bed only when his age is "one less than a multiple of three." This means the child starts getting snacks in his room before bed when he turns 2 years old, then stops getting them when he turns 3. Then he starts again when he turns 5 but stops when he turns 6. This cycle repeats every 3 years, so the kid can get snacks in his room before bed when his age is 2, 5, 8, 11, etc. (every 3 years). (<https://www.desmos.com/calculator/wh3uqaclgo>)

It's difficult to defend this policy with a reasonable argument. The first impression is that the mother made up the rule for some obscure reason. However, the title text explains that Randall's mother enforced this rule on him, and his mother claims that, at the time, there was a valid reason for it (though the reason is not explained in the comic). The caption says that Randall has figured out that his nerdiness as an adult comes (at least in part) from his mother's strange rules.

Note that there is some debate about whether the privilege spoken of is to have snacks, to have snacks in his room, to have snacks before bed, or to have snacks in his room before bed.

#184: Matrix Transform

November 15, 2006

$$\begin{bmatrix} \cos 90^\circ & \sin 90^\circ \\ -\sin 90^\circ & \cos 90^\circ \end{bmatrix} \begin{bmatrix} a_1 \\ a_2 \end{bmatrix} = \begin{bmatrix} 0 & 0 \\ 1 & 0 \end{bmatrix}$$

In fact, draw all your rotational matrices sideways. Your professors will love it! And then they'll go home and shrink.

Explanation

A rotational matrix transformation (i.e. the big brackets with "cos" and "sin" in them) is used in computer graphics to rotate an image. In general, to rotate a point $[a1, a2]$ in a 2D space by z° clockwise, you can multiply it by the rotation matrix $\begin{bmatrix} \cos z^\circ & \sin z^\circ \\ -\sin z^\circ & \cos z^\circ \end{bmatrix}$. In this case, the left side of the equation is rotating $[a1, a2]$ by 90° . Simplifying the trigonometry, the 90° clockwise rotation matrix is $\begin{bmatrix} 0 & 1 \\ -1 & 0 \end{bmatrix}$, so multiplying this by $[a1, a2]$, you should get $[a2, -a1]$.

The joke is that the author performed the rotation transformation on the notation rather than on the vector it represents.

Rotational matrix transformations are a special case of the general linear matrix transform, which can do other things to images, including the other two affine transformations of scaling them or translating (moving) them. On a pedantic note, normally mathematics uses counterclockwise as a default, although computer graphics frequently use a clockwise default, so this may be an intentional reference.

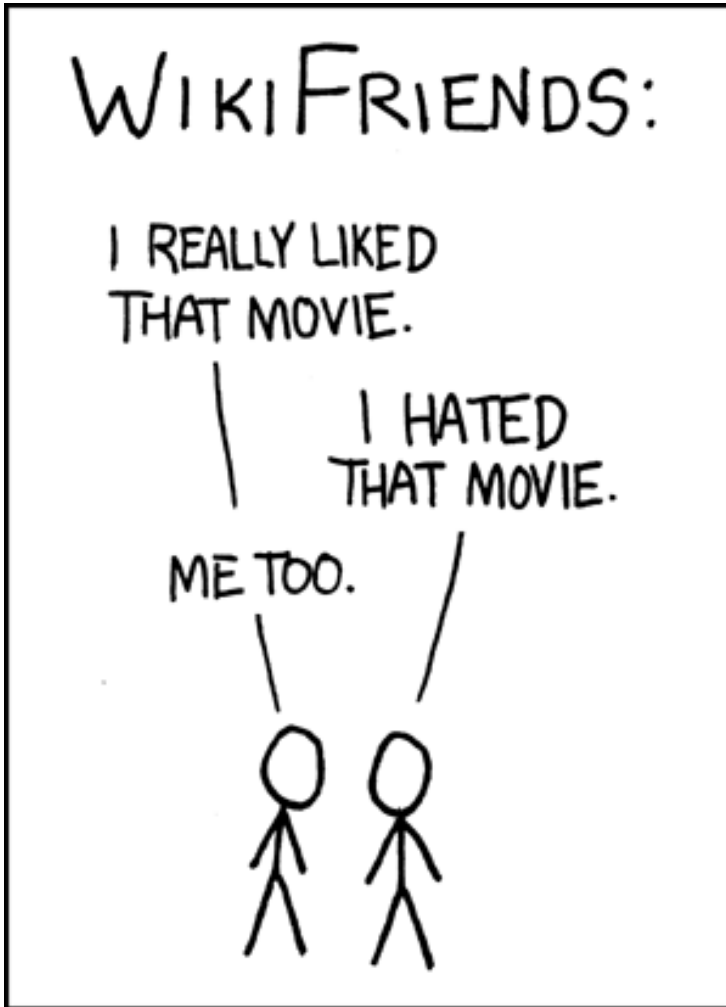
So the title text may be referring to the professors going home (translation) and shrinking (scaling) from the joke.

The red text in xkcd: volume 0 notes that mean people wrote into state that the direction of rotation was wrong, but that's due to readers not checking the signs. Rather, the actual typo was that "shrink" in the title-text should

have been "drink", but was left because of $(1/2)[a_1, a_2]$.

#185: Wikifriends

November 17, 2006



It's crazy how much my gut opinion of a movie/song is swayed by what other people say, regardless of how I felt coming out of the theater.

Explanation

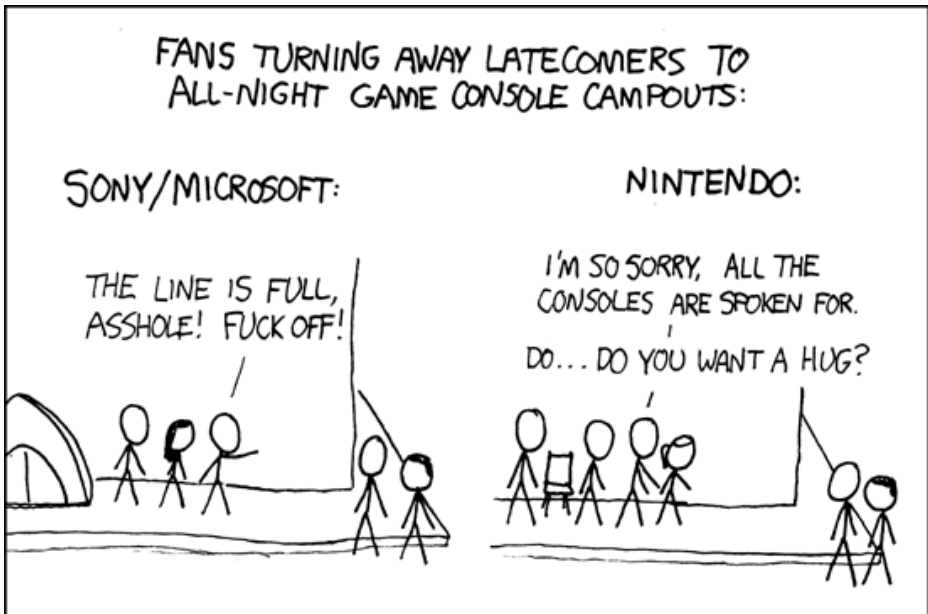
The comic's title refers to Wikis, which are collaboratively edited websites (such as this one). The first such site was WikiWikiWeb, but Wikipedia (an online encyclopedia) has become the most well-known example, and may have been specifically what Randall had in mind while drawing this comic, as other comics also reference Wikipedia.

The influence of social environment is called peer pressure, often with a negative connotation. The term "Wikifriends" is coined in the comic as a label for people who adjust their views in order to incorporate into a group. That is to say that, in the same way a Wiki page can be edited by people other than the original author, a "Wikifriend" allows their opinions to be "edited" by someone else. As an example, the comic shows a discussion about a movie in which one contributor changes his opinion entirely when he hears what his friend thinks.

The title text suggests that Randall also sees himself as being frequently influenced by others.

#186: Console Lines

November 20, 2006



If I get a Wii, it will be the first game console I've owned.

Explanation

This comic relates to video game consoles. At the time this comic was published, there were three major competing products: the Playstation 3 by Sony, the Xbox 360 by Microsoft, and the Wii by Nintendo. When a game console gets released, fans are often seen queuing outside the stores or camping on the pavement in order to be among the first to get their hands on a console. The comic shows such a console camp and points out the differences between the fan communities. While the fans waiting in line for a Sony or Microsoft product are very rude, the Nintendo fans are apologetic and try to comfort (that is to say, console) those who arrived too late to obtain a package. The cliché that Nintendo fans are nicer and more polite may be attributed to the fact that the Wii is targeted at children and families, while the PS3 and the Xbox are targeted at the more "serious gamer" crowd.

The title text primarily expresses Randall's distance from the console wars (he has never owned a game console before), but also indicating an inclination towards the Nintendo Wii.

#187: The Familiar

November 22, 2006



When I say we should do something sometime, I'm secretly hoping you'll say 'Why not now?'

Explanation

Cueball's friend asks him to go with him to view the sunrise over the ocean. Cueball refuses by giving a list of excuses, including the statement that "rationalizing the familiar is easy." This statement is amusing, because Cueball acknowledges the fact that he is making excuses and seems to refuse going out on the basis that rationalizing going to see the sunrise would require much more effort. This criticizes some people's tendency of not trying new things or going out with friends, even though one would likely get more fulfillment by doing these things. It may well be implied that the friend doing the inviting has left to view the sunrise, leaving Cueball behind since he wasn't willing to engage in an activity.

The computer with the egg-shaped profile looks like an iMac G3, sold from 1998 until 2003. It seems that rationalizing the familiar has made Cueball resistant to upgrading his computer long beyond its obsolescence date.

The title text indicates Randall's frustration with this mentality and his hope that when he wants to make plans with someone, they are just as eager.

#188: Reload

November 24, 2006



And watch out for that guy from comic #53.

Explanation

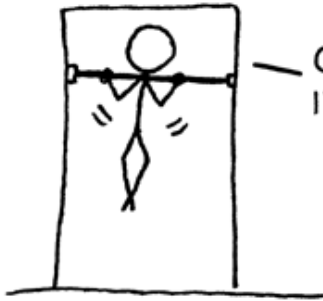
This comic refers to the common method for reloading your ammunition in arcade game type shooters, also known as "rail shooters." The player is typically given a Light gun, and the player characters typically have unlimited magazines of ammunition; to load a new magazine, the player would aim their light gun away from the screen and pull the trigger. Obviously this method of reloading would not work in real life.[citation needed]

The title text tells you to watch out for the guy from comic 53: Hobby, which shows a man who randomly pops up to the police when they are performing a drug raid. This refers to the random figures that pop out at many games; if they are not a valid target and you shoot them, you will lose points.

#189: Exercise

November 27, 2006

LIKE MANY GEEKS, I GOT
A LOT MORE INTERESTED
IN EXERCISE ONCE I MADE THE
CONNECTION TO LEVELING UP.



— ONE MORE POINT TO STR, THEN
I'LL RUN TO WORK ON CON.

I haven't had the patience for RPGs in a long time.

Explanation

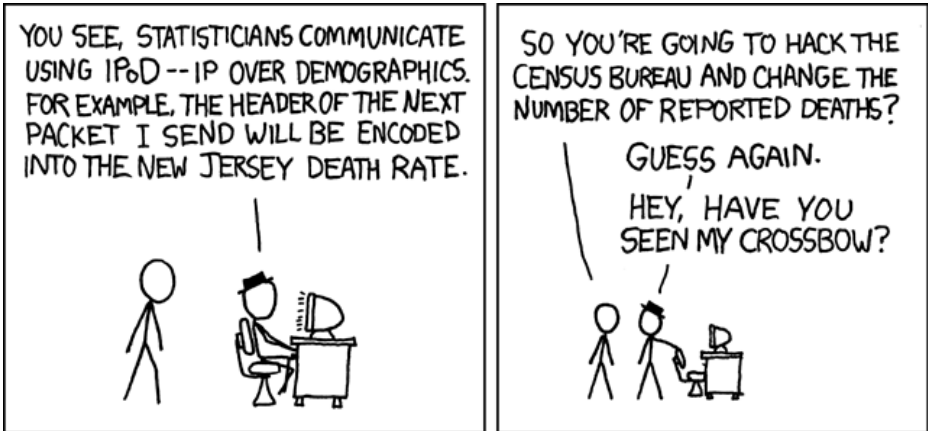
Role-playing games (RPGs) are a pastime commonly associated with geeks in which players assume the role of a fictional character in a fantasy world. In many RPGs, character evolution and advancement is represented by "leveling up." Through winning battles and, less frequently, completing tasks or missions, characters are awarded experience points (XP), which can be spent on increasing their ratings in attributes (such as strength or speed) or skills (such as bow-hunting or computer hacking). The number of XP awarded is generally proportional to the difficulty of the task completed.

Cueball is doing pull-ups, a strength-training exercise that mainly targets the latissimus dorsi. Repeating this exercise over time will improve his ability to do more pull-ups in one go - in other words, he will become stronger. In doing so, he is effectively leveling up his STR (strength) attribute in real life. While doing his pull-ups, he comments that he will soon switch to running - an aerobic exercise that improves endurance - in order to build up his CON (constitution) attribute. Cueball is treating his gym session like an RPG, and observes that, as a self-confessed geek, he would not be as interested in exercising without that link.

The title text implies that since Randall has lost his patience and ability to play RPG games, likely due to the connection to exercise.

#190: IPoD

November 29, 2006



For smaller numbers he has to **SAVE** lives. The birthrate channel is even more of a mixed bag.

Explanation

IP is one of the main protocols of the Internet. It is used to route data packets from one computer to another, using other computers or even complete networks in between if needed. It is designed to use the fastest (not necessarily the shortest) route to the target, automatically using another route if a connection or a transmitting host fails.

Every participant of the network has to have a so-called IP address. The data is divided into packets, each consisting of a header and the payload. The header tells the transmitting parties where the packet comes from and where it should go (together with some other details). The payload is the data to be transmitted.

IP packets can be carried by a variety of transport networks. Such methods are often referred to as "IP over X" (or "IPoX" for short). Examples include IP over DVB, IP over ATM, and the humorous[citation needed] IP over Avian Carriers.

Black Hat (and other statisticians) are using demographics as IP packets to send data. In order to adjust the death rate to encode the header, Black Hat plans to travel to New Jersey and go on a killing spree with a crossbow, instead of merely hacking the census bureau's computers. Such antics could only be used to increase the death rate; decreasing it would require saving lives instead, as mentioned in the title text. Also as

mentioned, birth rates would be trickier to manipulate; doing so would require encouraging or discouraging women to have children, compromising birth control, or conceiving children himself; all would have a nine-month delay.

Crossbows were also mentioned in 564: Crossbows, and Black Hat is seen using his crossbow in 929: Speculation.

#191: Lojban

December 01, 2006

IF YOU LEARNED TO SPEAK LOJBAN,
YOUR COMMUNICATION WOULD BE
COMPLETELY UNAMBIGUOUS AND LOGICAL.

YEAH, BUT IT WOULD ALL BE
WITH THE KIND OF PEOPLE
WHO LEARN LOJBAN.



zo'o ta jitfa .i .e'o xu do pendo mi

Explanation

Lojban is a constructed language designed to be logical, unambiguous, and culturally neutral — similar to the better known artificial language Esperanto. The authors originally designed it as an experiment, but a few people have picked it up and tried to learn it. However, anyone actually willing to learn Lojban is someone Black Hat would rather avoid. Alternately, only people who speak Lojban, who compose an admittedly tiny proportion of the general population, could benefit from the logic of the language, making the benefits of Lojban mostly pointless to most people.

Clicking on the original comic brings you to a Lojban translation of the comic. The Lojban version literally translates to something like:

If reading pedantically, a few mistakes can be identified:

- "Hypothetically" is applied to the entire first sentence rather than the subclause "you are an expert in Lojban".
- The word "pavysmu" is used in a way that indicates the things being said are an unambiguous meaning, rather than having a single meaning.
- The subgroup of people is specified as being an expert in Lojban, not the people in it.

The title text is also written in Lojban. It translates roughly as: "That was a joke. Really. Wanna be friends with me?" Since Lojban aims to be completely

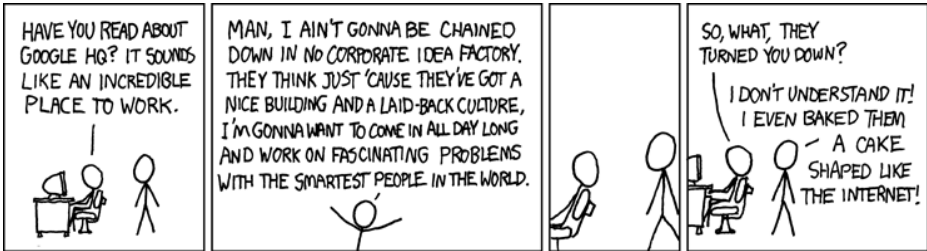
unambiguous, idiomatic structures like sarcasm and humor have associated particles - when a joke is made, it must be explicitly marked as such or else it's incorrect. Most languages rely on intonation expressing this, but Lojban does not, leading to the strange practice here of specifically pointing out that a joke was made.

A more literal translation gives: "Humorously that false. Please is-it-true-that you friend me?"

The lojban word {xekce} (shortened from {xekcedipasopa}, or XKCD-191), is based on this comic, referring to a particular Lojbanic cultural phenomenon in which discussions in or about Lojban tend to quickly turn into arguing over grammar, semantics, or usage.

#192: Working for Google

December 04, 2006



I hear once you've worked there for 256 days they teach you the secret of levitation.

Explanation

Many look up to Google as the ultimate workplace in the IT industry. Therefore, they have lots of applicants but can afford to be very selective, and only the best and brightest succeed.

In the first panel, the guy at the computer asks his friend (both look like Cueball) what he thinks about working at Google HQ (Head Quarters). His friend starts out by dismissing Google as a "corporate idea factory," but from the rest of his speech, we can infer that these are not his true feelings. He is exhibiting the attitude known as "sour grapes," where you criticize something that is out of your reach, or that has been denied from you.

In the last panel, it is revealed that the friend has been trying very hard to get a job at Google, even resorting to bribing the interview panel by baking them a cake "shaped like the Internet." This misguided action is a sign of how much he wanted a position.

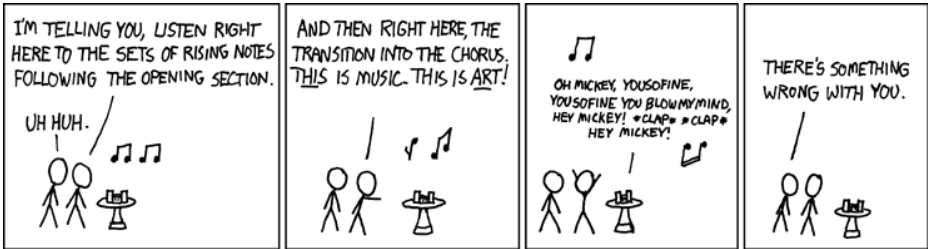
Since the Internet does not have a defined shape, it is difficult to visualize exactly what he baked. The comment was maybe foreshadowing 195: Map of the Internet that came out a week later. It would, though, be a more interesting cake if it looked like the map in 256: Online Communities, but that came out 20 weeks later. Another possibility is that the comment is a reference to this video, in which the black box shown is supposedly the Internet. If this is the case, then the cake would have

been shaped like the box in the video.

The title text says that if you work for Google for 256 (28) days, you get to learn how to levitate. This displays some of the mystique with which Google is commonly viewed. The joke here is that 256 is bigger by one than the largest value a single byte can hold, as has been demonstrated with the 256 Bug. However, Astro Teller, the director of Google X labs, a Google division that researches "moonshot" projects, has mentioned in an interview that they contemplated starting a levitation project.

#193: The Perfect Sound

December 06, 2006



Oh, what a pity, can't you understand...

Explanation

This comic relates to the song "Mickey", performed in 1982 by one-hit-wonder Toni Basil. The lyrics, as well as the instrumentation of the song, were in fact rather simple, being a perfect example of bubblegum pop in the early 1980s.

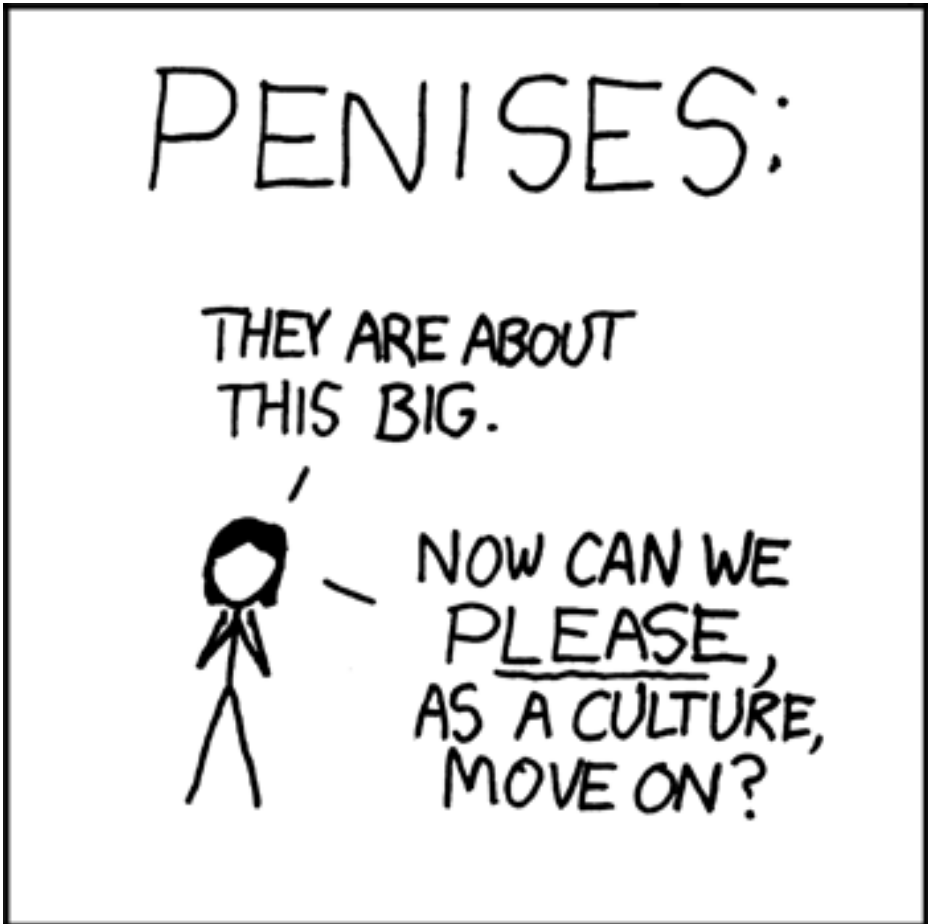
In the comic, however, the song is introduced as a musical masterpiece. Cueball points out the opening sequence to his friend and states that it should be considered art. When the chorus sets in and the song unfolds its lyrical brilliancy, his friend has no other comment to make except that there must be something wrong with Cueball.

Cueball's actions might be seen as a critical approach towards over-interpreting music. The comic's title, as well as the stereo setup depicted, could perhaps also denote a sidesweep on audiophiles.

The title text parodies a line from the song and links it with the incomprehension of Cueball's friend.

#194: Penises

December 08, 2006



The penis varies in size when flaccid and is pretty consistently about yea big when erect. Anyway, back to the sitcom one-liners and the constant flow of spam.

Explanation

The comic takes aim at what is considered by some to be the apparent societal obsession with the male sexual organ ("phallocentrism"), especially in regard to size. In general, depictions of an erect penis (also called phallus) represent male potency.

While present in every human civilization, the symbol of the penis is also prominently featured in modern mass media. Many films and television series make use of penis-related jokes. A very common trope is the male obsession with the idea that a larger penis is considered more desirable, and a smaller penis less manly or satisfying to women.

Megan criticizes this obsession by pointing out that most penises are about the same size, and normal variations in size are not worth getting worked up about.

The title text refers to the excessive advertisement for potency pills and penis enlargement in spam emails. The symbol of the phallus can be regarded by some as omnipresent in modern Western society (but not necessarily in other cultures), with presumably every public toilet sporting at least one badly drawn depiction of a penis.

#195: Map of the Internet

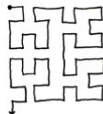
December 11, 2006

MAP OF THE INTERNET THE IPv4 SPACE, 2006



THIS CHART SHOWS THE IP ADDRESS SPACE ON A PLANE USING A FRACTAL MAPPING WHICH PRESERVES GROUPING--ANY CONSECUTIVE STRING OF IP_s WILL TRANSLATE TO A SINGLE COMPACT, CONTIGUOUS REGION ON THE MAP. EACH OF THE 256 NUMBERED BLOCKS REPRESENTS ONE /8 SUBNET (CONTAINING ALL IP_s THAT START WITH THAT NUMBER). THE UPPER LEFT SECTION SHOWS THE BLOCKS SOLD DIRECTLY TO CORPORATIONS AND GOVERNMENTS IN THE 1970's BEFORE THE RIRs TOOK OVER ALLOCATION.

0	1	14	15	16	19	→
3	2	13	12	17	18	
4	7	8	11			
5	6	9	10			



 = UNALLOCATED BLOCK

For the IPv6 map just imagine the XP default desktop picture.

Explanation

On the map, all allocated IPv4 address blocks (as of 2006) are shown using a fractal mapping. (The Hilbert curve is used: the pattern is demonstrated at the bottom of the image.) In February 2011, the final remaining IPv4 blocks were allocated to the Regional Internet registries, and so today there would no longer be any green spaces outside of Class E addresses (above 240 through 255, excluding the Broadcast address of 255.255.255.255).

In the early 1990s, corporations and governments could register an entire class A segment (one 256th of the total space), but later it was divided into smaller parts because of a lack of space.

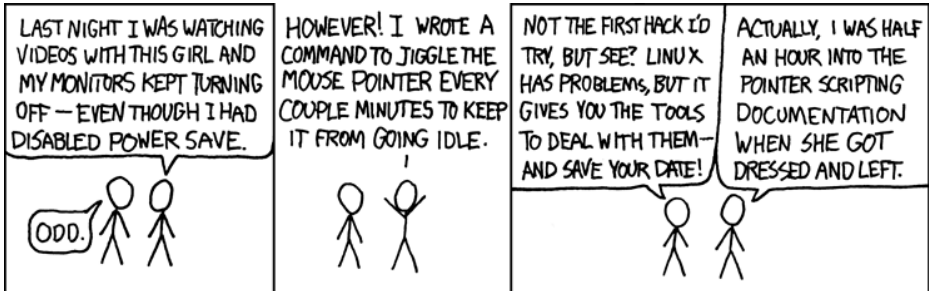
This leads to the title text, which mentions IPv6. This protocol has so many addresses that only a swarm of nanobots could exhaust them. The default desktop picture in Windows XP is a green landscape, and the joke is that since barely any of the addresses are allocated yet, the IPv6 map would just be a green landscape. There are large (enough to be visible) blocks of IPv6 space that have been allocated for special purposes and to RIRs. However, the amount of IPv6 space allocated to end users is only a tiny portion of that.

Later, Randall actually drew some "real" maps of the Internet, or at least its online Communities (see 256: Online Communities and 802: Online Communities 2).

A large number of updated Hilbert curve maps inspired by this comic have been created. Many also use data obtained by pinging IP addresses to see which addresses are accessible. Here are maps with images from 2003-2006, 2007 (which has a few different maps), 2009 (showing country codes), 2010, 2012 (collected by the Carna Botnet), a 2006-2014 animation, 2018, and 2023.

#196: Command Line Fu

December 13, 2006



When designing an interface, imagine that your program is all that stands between the user and hot, sweaty, tangled-bedsheets-fingertips-digging-into-the-back sex.

Explanation

The Linux command line allows users to make their computer do nearly anything. In this comic, Cueball recounts how he used a command line hack to solve a problem with his monitors turning off during a movie, something that an attempt to change settings (possibly via a standard GUI configuration dialogue) has failed to resolve adequately. The scripted get-around appears to have worked, as far as it has been used.

However, in an attempt to apply his dedication toward best programming practices to the solution, Cueball also became absorbed in fully documenting the mini-project. This could have been either alongside the project, keeping pace with the structured plan (e.g. the Waterfall model's conception, initiation, analysis, design, construction, testing, deployment, and maintenance phases), or as a 'necessary' final step to summarise the realized solution.

In either case, the sheer simplicity of the solution (for someone as technically minded as Cueball) suggests that the documentation writing has become the bulk of the effort. In the time that he spends trying to complete the issue to his satisfaction, the woman he had brought home had already left and the current opportunity to enjoy the movie (and company) was gone. Although at least it is likely that the next opportunity to enjoy a movie in company, with the same companion or another, will now run flawlessly. Or at least probably without this

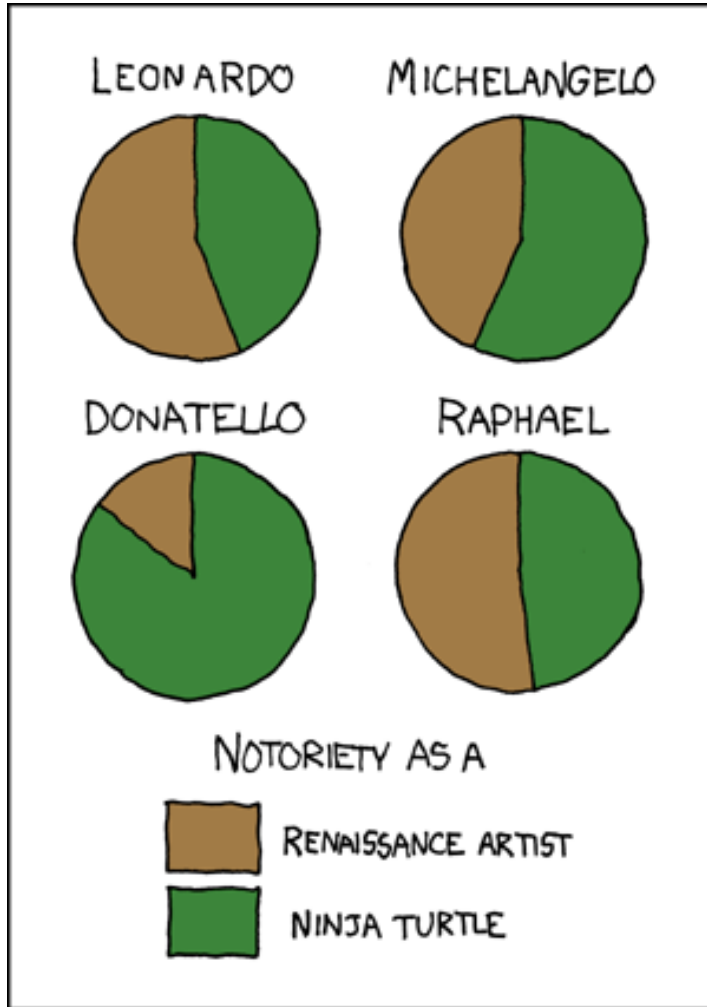
particular problem, if there is no problem with its implementation.

The title text applies this story's narrative in reverse. Whereas for Cueball to have a successful evening, he should have hastened the design process to the bare minimum required to provide a workable solution, it forces any designer of an interface (which would include the unsuccessful 'inbuilt' configuration wizard) to ensure that it at least does what it purports to do. If that had been done thoroughly enough, originally, someone like Cueball (and his date) would not have had this reason to be prevented from fully enjoying the evening as originally anticipated.

Software that jiggles the mouse exists, as well as instructions for Linux scripting (although installing the necessary libraries might take longer).

#197: Ninja Turtles

December 15, 2006



The henchmen Bebop and Rocksteady have hijacked the musical genres for us just like the Lone Ranger hijacked the William Tell Overture for our parents.

Explanation

The Teenage Mutant Ninja Turtles, or Ninja Turtles, are a pop-cultural phenomenon especially prominent in the late 1980s and 1990s. The four turtles are named for four artists of the European Renaissance: Leonardo da Vinci, Michelangelo di Lodovico Buonarroti Simoni, Donato di Niccolò di Betto Bardi, and Raffaello Sanzio da Urbino. Due to the popularity of the Ninja Turtles in a variety of media, some of the names are now better known through their Ninja Turtle connection than their original artist forebears. The pie charts provide an approximation of this effect - Leonardo da Vinci remains one of the most notable artists of the period, and thus "Leonardo" is depicted as more notable for the artist. Donatello is the most obscure of the four as an artist, and consequently the majority of the current notoriety of "Donatello" is as a Ninja Turtle.

The colors used in the comic correspond to the primary colors of the turtles (green for the body, brown for the shell), especially in the original series from the 80s.

The title text alludes to a similar phenomenon, as two villain characters from the same Ninja Turtles show called "Bebop" and "Rocksteady" are now better known as the characters than for the musical genres they are named for. Similarly, the William Tell Overture became so closely tied to the character of the Lone Ranger in media for the previous generation that, to many, the William Tell Overture is in effect "The Lone Ranger

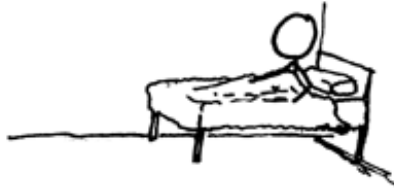
Theme."

#198: Perspective

December 18, 2006

SOMETIMES, WHEN I FIRST WAKE UP, I AM
CAUGHT IN THE HORRIBLE GRIP OF PERSPECTIVE:

IT MAY BE A JEWEL OF OPEN SOURCE, BUT
FIREFOX IS JUST A BROWSER. IT SHOWS
WEBPAGES. WHAT THE HELL IS WRONG WITH US?



FORTUNATELY, THIS SUBSIDES QUICKLY.

I wonder what I was dreaming to prompt that. I hope it wasn't the Richard Stallman Cirque de Soleil thing again.

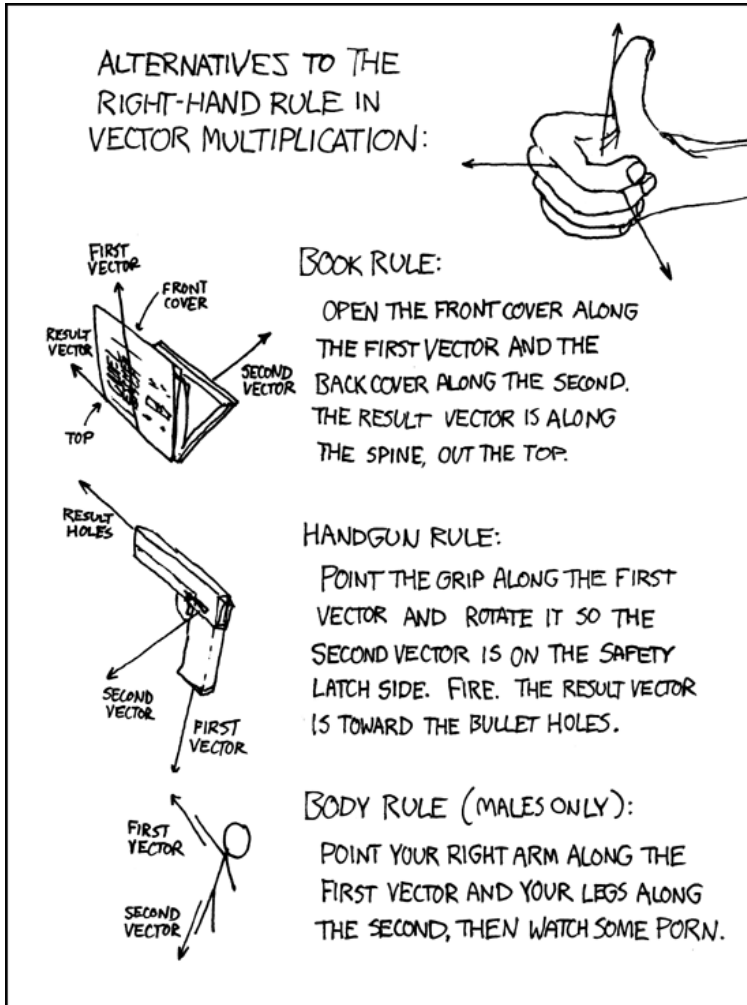
Explanation

Firefox is a popular browser, and in 2006, it was the second most commonly used browser. Its more fervent supporters sometimes wrote as if there was a moral imperative to use Firefox rather than alternatives. Cueball, presumably representing Randall, wakes up with a reasonable perspective on the relative unimportance of an internet browser within the world at large, but quickly loses that perspective as his enthusiasm for nerdy things like Firefox gets the better of him. The humor stems from the irony that Cueball is relieved to trade a richer perspective for a simpler, browser-oriented world view. Alternately, the dream may be a reference to Stallman's forceful defense of software freedom, which could be seen as "over-the-top" or circus-like. Another possible joke is that the comic, unlike most other xkcd comics, is drawn with perspective as well as being about a more metaphorical perspective.

The title text references Richard Stallman, an American software freedom activist and computer programmer, and Cirque du Soleil, an entertainment company specializing in big-top circus performances. The two have no connection with one another, so this is one example of an odd combination of topics that would only (and commonly) be connected in dreams.

#199: Right-Hand Rule

December 20, 2006



To really expand your mind try some noncartesian porn. Edwin Abbott Abbott has nothing on 'Girls on Girls in Tightly Closed Nonorientable Spaces'.

Explanation

The right-hand rule is a mathematics and physics trick to learning how to find the cross product of two Cartesian vectors in three dimensions. First, extend the fingers of your right hand in the direction of the first vector (in the example diagram in the comic, this is to the left). Then, curl your fingers in the direction of the second vector (out of the page/screen, in the example). Now point your thumb perpendicular to the other fingers, and it will point in the direction of the cross product of those two vectors (upwards, in the example). Note that reversing the order of the two vectors also reverses the direction of the cross product.

The book rule is an actual alternative to the right hand rule that might be useful to some physics students doing exercises out of their textbooks. However, it would give incorrect results with books in languages that are read from right to left, such as most Jewish prayer books, Japanese manga, etc.

The gun rule also technically works, but it would be extremely impractical, expensive, and dangerous to use and fire a loaded gun every time you want to find the result vector. It would also be very awkward to hold the gun in line with the vectors. It also assumes that the safety latch is consistently on the same side of all guns; if a gun was made with the safety latch on the other side, then it would give incorrect results.

The body rule is described as for 'males only', which would limit the number of people who are able to use this rule. With the right arm oriented along one vector and the legs along the second, the result vector is found along the penis of a person who has one, which may be conveniently erected by watching porn.

The title text refers to Edwin Abbott Abbott, author of the book Flatland, a story about a two-dimensional world. Flatland is a recurring topic, such as in 721: Flatland. The title text misspells Abbott's name - unlike most typos in XKCD, this has not been corrected by Randall.

Orientability is a property that refers to a space with continuously varying surface normals, which are essentially just vectors that are perpendicular to the surface of the space. Nearly every space commonly encountered is orientable; this is likely why the porn is referred to as mind expanding and superior to Edwin Abbott Abbott's work.

#200: Bill Nye

December 22, 2006

THE TRIBULATIONS OF BILL NYE:

HEY, KIDS, SEE HOW THE
ICE CRACKS AND POPS IN
YOUR WATER? I WONDER
WHAT CAUSES THAT...

|

AHEM I SAID,
I WONDER WHAT--

KNOW WHAT? MAYBE
I JUST WANNA ENJOY
MY GODDAMN MEAL.



You could at least not wear the lab coat everywhere,
dude.

Explanation

Bill Nye is an educator well known in the United States for his science-focused television show targeted to elementary school children (website).

A mother, Blondie, is sitting at a table in a restaurant with her two children, asking them a science-related question about the ice cubes in their drinks. She is hoping to prompt Bill Nye, sitting at the next table, to join the conversation and perhaps inspire her kids. Thinking he has not heard, the mother then coughs slightly and starts to repeat the question. His then immediate and abrupt dismissal of her is antithetical to his television persona, where he is consistently enthusiastic about science and keen to take any opportunity to teach the viewer.

The use of the word "tribulation" implies that being recognized and accosted in public is a cause of much suffering and misery to Mr. Nye.

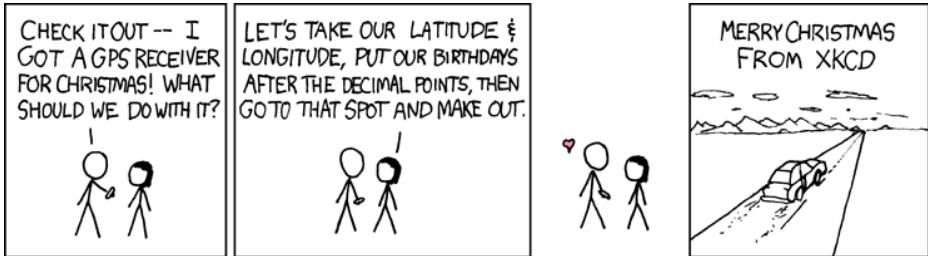
The title text contains another joke. He eats a meal in public where he does not want to be recognized or harassed with questions; however, he wears a lab coat. Regardless of Bill Nye's otherwise iconic and recognizable appearance, wearing a lab coat in public will probably draw the gazes and curiosity of others, no matter who is wearing it.

Ice pops and cracks when dropped in a glass of water

because of thermal stress. The much warmer water causes the outer part of the ice to expand, relative to the still-cold interior. (The part of the ice that melts decreases in volume as it does so.) This results in audible internal fractures in the brittle structure. The effect decreases quickly as the ice cools the water in its immediate environment, so the temperature differential decreases. This is why the first one or two ice cubes added to a glass are more likely to fracture than subsequent cubes are.

#201: Christmas GPS

December 25, 2006



If it's over water, and you can't get a boat or revise the rules to preserve the makeout, there is no helping you.

Explanation

In the comic, Cueball has gotten a GPS device and asks Megan what to do with it. (It would be several more years before GPS-enabled smartphones displaced separate GPS devices on the market, so the device presents exciting new opportunities to the couple.) She suggests that they take their current coordinates and modify the latitude and longitude with a simple function based on their birthdays, thereby pointing to an arbitrary, non-random location, to which they would go to and make out. For example, if Cueball was born on, let's say, April 1, 1986 and Megan on August 12, 1988 and they are somewhere in New York (40.768062,-73.98468), the coordinate they type could make (40.040186, -73.081288) (assuming US date format), or (40.860401, -73.880812) (assuming following ISO 8601). The good thing about keeping the number before the decimal point is that the distance is still realistic to get to by car. Megan suggests to make out in this place. This procedure is somewhat of a precursor to Geohashing.

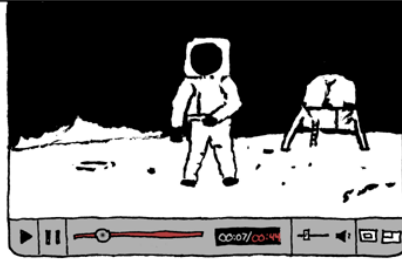
The title text suggests that if the location you make for yourselves is over water (which the example above happens to be), you either need to find a boat or find some rule that you can change to preserve the promise of making out, and if you can't do either, then there is no way you'd get to make out.

From xkcd: volume 0:

#202: YouTube

December 27, 2006

THE INTERNET HAS ALWAYS HAD LOUD DUMB PEOPLE, BUT I'VE NEVER SEEN ANYTHING QUITE AS BAD AS THE PEOPLE WHO COMMENT ON YOUTUBE VIDEOS.



COMMENTS & RESPONSES

ROCKKIR (49 MINUTES AGO)

THIS IS SO OBVIOUSLY FAKED ITS UNBELIEVABLE, WHY R PEOPLE SO GULLIBLE??? MORONS

(REPLY)(MARK AS SPAM)

BIGMIKE133 (35 MINUTES AGO)

I'VE SEEN THE SPACE SHUTTLE ASS HOLE IT DEFINETLY LANDED ON THE MOON DO SOME RESEARCH...

(REPLY)(MARK AS SPAM)

GUNPISTOLMAN (22 MINUTES AGO)

IF IT WAS REAL WHY IS THEIR GRAVITY? AMERICANS R FUCKEN SHEEP

(REPLY)(MARK AS SPAM)

CRACKMONKEY74 (17 MINUTES AGO)

U DONT THINK WE WENT TO THE MOON WHY NOT TELL LOUIS ARMSTRONG TO HIS FACE

(REPLY)(MARK AS SPAM)

SIMPLEPLAN2009 (5 MINUTES AGO)

IT WAS A SOUNDSTAGE ON MARS

(REPLY)(MARK AS SPAM)

I pray GunPistolMan never learns the word 'sheeple'.

Explanation

This comic is pointing out the fact that many of the comments on YouTube videos are insipid and poorly informed, being pointless arguments over some minor topic or factually incorrect position (conspiracy). At the time of this comic, YouTube was fairly new, and the comic's observation about the inanity of YouTube comments was novel. Since then, this observation has become a widely accepted truism about the Internet. In this case, the Moon landing hoaxers are at the receiving end of Randall's pen.

- The comment by Rocckir just states that the video is obviously fake, with no evidence or explanation.
- The comment by BigMike133 confuses the Space Shuttle (which was never capable of landing on the Moon) with the Apollo Lunar Module.
- The comment from GunPistolMan claims that the video is fake due to the mistaken belief that the Moon would have no gravity, whereas in reality, every object in the universe that has mass has gravity, including the Moon, comets, asteroids, moons of other planets, even yourself, and so on. The gravity of the Moon is approximately 1/6 the gravity of Earth.
- The comment by CrackMonkey74 names Louis Armstrong, a famous jazz musician, who may have waxed lyrical about the moon, but never went there. The ill-informed commenter actually means Neil Armstrong, who was the first person to walk on the

Moon. The dare to accuse Armstrong to his face may be a reference to an incident where moon-hoax conspiracy theorist Bart Sibrel confronted Buzz Aldrin and called him "a coward, and a liar, and a thief." Aldrin responded by punching Sibrel; Sibrel's attempt to bring charges was dismissed on the grounds that he had provoked Aldrin to the point where the punch was a justified response.

- The user SimplePlan2009 is likely mocking the other commenters. While the conspiracy theorists frequently claim the Apollo footage was shot on a "soundstage", the poster takes the ludicrous position that the Moon shot was faked by actors filming the scene on Mars, a planet that at its closest approach to Earth is over a hundred times farther away than the Moon. Landing humans on Mars (much less landing enough people and equipment to set up a soundstage) is a feat that has still not been accomplished, and if it had been possible during the Apollo era, the landing on the Moon would have been a trivial task in comparison. In other words, why go through all the trouble of faking it, if doing it for real would have been no trouble at all?

The reputation of YouTube comment threads as cesspools of abject stupidity and blatant trolling is revisited in 301: Limerick and 481: Listen to Yourself.

The username CrackMonkey74 appears again in 406: Venting and 574: Swine Flu.

The title text is the first reference to Sheeple, which appeared a few more times in xkcd comics.

#203: Hallucinations

December 29, 2006



And the possibility of lucid dreaming just makes it that much more fascinating.

Explanation

Cueball on the right is talking to his (Cueball-like) friend about dreaming but using words and phrases to make dreaming sound much more dramatic than we usually think that it is. However, the description is technically correct.

Randall is using the comic to make a point about how we think dreaming is so normal, but if we actually realize what's happening, dreaming is very strange:

- go comatose for a few hours = sleep for a few hours
- hallucinate vividly = dream
- suffer amnesia about the whole experience = forget the dream

The character on the left takes this as though the experience is normal. Which it indeed is, but that is why Randall has the caption above the guys: Sometimes it seems bizarre to me that we take dreaming in stride.

The title text is about lucid dreaming, where the dreamer is aware that they are dreaming. This is even more fascinating to Randall. He uses this type of dream in 269: TCMP.

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